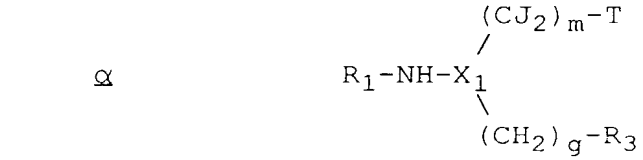
CLAIMS

We claim:

1. A compound represented by the formula:



wherein:

X_1 is -CH;

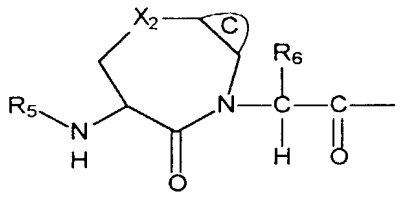
g is 0 or 1;

each J is independently selected from the group consisting of -H, -OH, and -F, provided that when a first and second J are bound to a C and said first J is -OH, said second J is -H;

m is 0, 1, or 2;

T is -OH, $-CO-CO_2H$, $-CO_2H$, or any bioisosteric replacement for $-CO_2H$;

R_1 is selected from the group consisting of the following formulae, in which any ring may optionally be singly or multiply substituted at any carbon by Q_1, at any nitrogen by R_5, or at any atom by =O, -OH, $-CO_2H$, or halogen; and any saturated ring may optionally be unsaturated at one or two bonds;

(w)  ;

wherein each ring C is independently chosen from the group consisting of benzo, pyrido, thieno, pyrrolo, furano, thiazolo, isothiazolo, oxazolo, isoxazolo, pyrimido, imidazolo, cyclopentyl, and cyclohexyl;

R_3 is:
-CN,
$-CH=CH-R_9$,
$-CH=N-O-R_9$,
$-(CH_2)_{1-3}-T_1-R_9$,
$-CJ_2-R_9$,
$-CO-R_{13}$, or
$-CO-CO-N(R_5)(R_{10})$;

each R_4 is independently selected from the group consisting of:
-H,
$-Ar_1$,
$-R_9$,
$-T_1-R_9$, and
$-(CH_2)_{1,2,3}-T_1-R_9$;

each T_1 is independently selected from the group consisting of:
CH=CH-,
-O-,

-S-,
-SO-,
-SO_2-,
-NR_{10}-,
-NR_{10}-CO-,
-CO-,
-O-CO-,
-CO-O-,
-CO-NR_{10}-,
-O-CO-NR_{10}-,
-NR_{10}-CO-O-,
-NR_{10}-CO-NR_{10}-,
-SO_2-NR_{10}-,
-NR_{10}-SO_2-, and
-NR_{10}-SO_2-NR_{10}-;

each R_5 is independently selected from the group consisting of:

-H,
-Ar_1,
-CO-Ar_1,
-SO_2-Ar_1,
-CO-NH_2,
-SO_2-NH_2,
-R_9,
-CO-R_9,
-CO-O-R_9,
-SO_2-R_9,

$-CO-N(R_9)(R_{10})$, and

$-SO_2-N(R_9)(R_{10})$;

R_6 is:
-H
$-Ar_1$,
$-R_9$,
$-(CH_2)_{1,2,3}-T_1-R_9$, or
an α-amino acid side chain residue;

each R_9 is a C_{1-6} straight or branched alkyl group optionally singly or multiply substituted with -OH, -F, or =O and optionally substituted with one or two Ar_1 groups;

each R_{10} is independently selected from the group consisting of -H or a C_{1-6} straight or branched alkyl group;

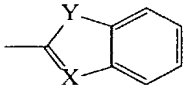
each R_{13} is independently selected from the group consisting of $-Ar_2$, $-R_4$ and $-N(R_5)-OH$;

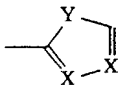
each Ar_1 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings, a cycloalkyl group which contains between 3 and 15 carbon atoms and between 1 and 3 rings, said cycloalkyl group being optionally benzofused, and a heterocycle group containing between 5 and 15 ring

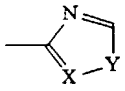
atoms and between 1 and 3 rings, said heterocycle group containing at least one heteroatom group selected from -O-, -S-, -SO-, $-SO_2-$, =N-, and -NH-, said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted with $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN,

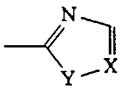
=O, -OH, -perfluoro C_{1-3} alkyl,  , or $-Q_1$;

each Ar_2 is independently selected from the following group, in which any ring may optionally be singly or multiply substituted by $-Q_1$ and $-Q_2$:

(hh)  ;

(ii)  ;

(jj)  ; and

(kk)  ;

each Q_1 is independently selected from the group consisting of:

$-Ar_1$

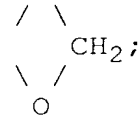
$-O-Ar_1$

$-R_9$,

$-T_1-R_9$, and

$-(CH_2)_{1,2,3}-T_1-R_9$;

each Q_2 is independently selected from the group consisting of $-OH$, $-NH_2$, $-CO_2H$, $-Cl$, $-F$, $-Br$, $-I$, $-NO_2$, $-CN$, $-CF_3$, and



;

provided that when $-Ar_1$ is substituted with a Q_1 group which comprises one or more additional $-Ar_1$ groups, said additional $-Ar_1$ groups are not substituted with Q_1;

each X is independently selected from the group consisting of =N-, and =CH-;

each X_2 is independently selected from the group consisting of -O-, $-CH_2-$, -NH-, -S-, -SO-, and $-SO_2-$;

each Y is independently selected from the group consisting of -O-, -S-, and -NH;

provided that when

g is 0,

J is -H,

m is 1,

T is $-CO_2H$,

X_2 is O,
R_5 is benzyloxycarbonyl, and
ring C is benzo,
then R_3 cannot be $-CO-R_{13}$ when:
R_{13} is $-CH_2-O-Ar_1$ and
Ar_1 is 1-phenyl-3-triflucromethyl-pyrazole-5-yl wherein the phenyl is optionally substituted with a chlorine atom;
or when
R_{13} is $-CH_2-O-CO-Ar_1$, wherein
Ar_1 is 2,6-dichlorophenyl.

2. The compound according to claim 1, wherein:
X_1 is -CH;

g is 0;

J is -H;

m is 0 or 1 and T is $-CO-CO_2H$, or any bioisosteric replacement for $-CO_2H$, or
m is 1 and T is $-CO_2H$;

ring C is benzo optionally substituted with $-C_{1-3}$ alkyl, $-O-C_{1-3}$ alkyl, -Cl, -F or $-CF_3$;

R_5 is:

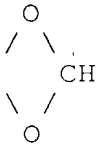
$-CO-Ar_1$
$-SO_2-Ar_1$,
$-CO-NH_2$,
$-CO-NH-Ar_1$
$-CO-R_9$,

$-CO-O-R_9$,
$-SO_2-R_9$, or
$-CO-NH-R_9$,

R_7 is -H and R_6 is: -H,
$-R_9$, or
$-Ar_1$;

R_9 is a C_{1-6} straight or branched alkyl group optionally substituted with =O and optionally substituted with $-Ar_1$;

R_{10} is H or a $-C_{1-3}$ straight or branched alkyl group;

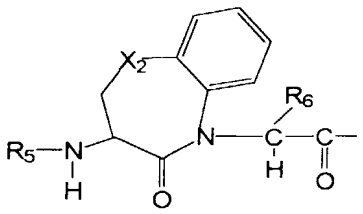
Ar_1 is phenyl, naphthyl, pyridyl, benzothiazolyl, thienyl, benzothienyl, benzoxazolyl, 2-indanyl, or indolyl optionally substituted with $-O-C_{1-3}$ alkyl, $-NH-C_{1-3}$ alkyl, $-N-(C_{1-3}$ alkyl$)_2$, -Cl, -F, $-CF_3$, $-C_{1-3}$ alkyl, or  ;

Q_1 is R_9 or $-(CH_2)_{0,1,2}-T_1-(CH_2)_{0,1,2}-Ar_1$, wherein T_1 is -O- or -S-;

each X is independently selected from the group consisting of =N-, and =CH-;

each X_2 is independently selected from the group consisting of -O-, $-CH_2-$, -NH-, -S-, -SO-, and $-SO_2-$.

3. The compound according to claims 1 or 2, wherein the R_1 group is:

(w1)  ; wherein

X_2 is:

-O- ,

-S- ,

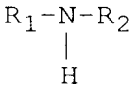
$-SO_2-$, or

-NH-;

optionally substituted with R_5 or Q_1 at X_2 when X_2 is -NH-; and

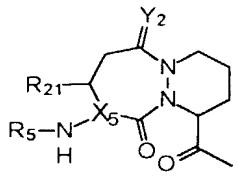
ring C is benzo substituted with $-C_{1-3}$ alkyl, $-O-C_{1-3}$ alkyl, -Cl, -F or $-CF_3$.

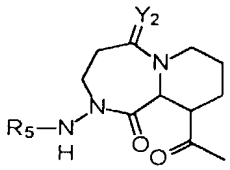
4. A compound represented by the formula:

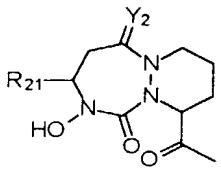
(I) 

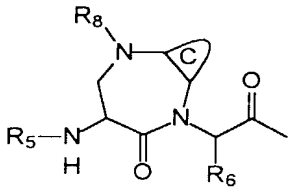
wherein:

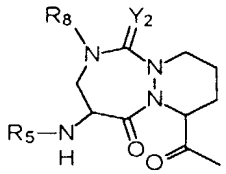
R_1 is selected from the group consisting of the following formulae:

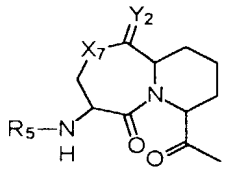
(e10)  ;

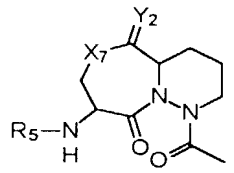
(e11)  ;

(e12)  ;

(w2)  ;

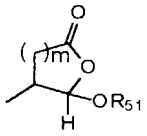
(y1)  ;

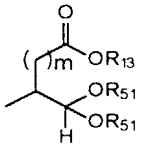
(y2)  ;

(z)  ; and

ring C is chosen from the group consisting of benzo, pyrido, thieno, pyrrolo, furano, thiazolo, isothiazolo, oxazolo, isoxazolo, pyrimido, imidazolo, cyclopentyl, and cyclohexyl;

R_2 is:

(a)  , or

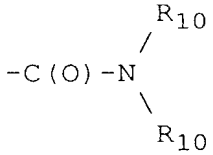
(b)  ;

m is 1 or 2;

R_5 is selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,



$-S(O)_2-R_9$,

$-C(O)-CH_2-O-R_9$,

$-C(O)C(O)-R_{10}$,
$-R_9$,
-H, and
$-C(O)C(O)-OR_{10}$;

X_5 is $-\underset{|}{CH}-$ or $-\underset{|}{N}-$;

Y_2 is H_2 or O;

X_7 is $-N(R_8)-$ or -O-;

R_6 is selected from the group consisting of -H and $-CH_3$;

R_8 is selected from the group consisting of:
$-C(O)-R_{10}$,
$-C(O)O-R_9$,
$-C(O)-N(H)-R_{10}$,
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-OR_{10}$,
$-C(O)C(O)-R_{10}$;
$-C(O)-CH_2N(R_{10})(R_{10})$,
$-C(O)-CH_2C(O)-O-R_9$,
$-C(O)-CH_2C(O)-R_9$,
-H, and
$-C(O)-C(O)-OR_{10}$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

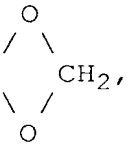
R_{13} is selected from the group consisting of H, Ar_3, and a C_{1-6} straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

each R_{51} is independently selected from the group consisting of R_9, $-C(O)-R_9$, $-C(O)-N(H)-R_9$, or each R_{51} taken together forms a saturated 4-8 member carbocyclic ring or heterocyclic ring containing -O-, -S-, or -NH-;

each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-NHR_9$, $-R_9$, $-C(O)-R_{10}$, and



provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

5. The compound according to claim 4, wherein R_5 is selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$, and

$-C(O)-NH-R_{10}$.

6. The compound according to claim 4, wherein R_5 is selected from the group consisting of:

$-S(O)_2-R_9$,

$-S(O)_2-NH-R_{10}$,

$-C(O)-C(O)-R_{10}$,

$-R_9$, and

$-C(O)-C(O)-OR_{10}$.

7. The compound according to claims 5 or 6, wherein:

m is 1;

R_{13} is H or a C_{1-4} straight or branched alkyl group optionally substituted with $-Ar_3$, $-OH$, $-OR_9$, $-CO_2H$, wherein the R_9 is a C_{1-4} branched or straight chain alkyl group; wherein Ar_3 is morpholinyl or phenyl, wherein the phenyl is optionally substituted with Q_1;

R_{21} is $-H$ or $-CH_3$;

R_{51} is a C_{1-6} straight or branched alkyl group optionally substituted with $-Ar_3$, wherein Ar_3 is phenyl, optionally substituted by $-Q_1$;

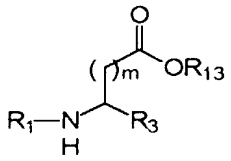
each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, pyrazolyl, thiazolyl, isoxazolyl, benzotriazolyl, benzimidazolyl, thienothienyl, imidazolyl, thiadiazolyl, benzo[b]thiophenyl, pyridyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-Cl$, $-F$, $-Br$, $-OH$, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and

wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

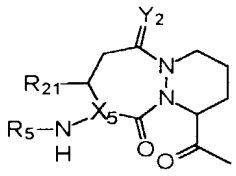
8. A compound represented by the formula:

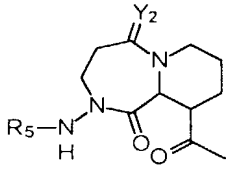
(II) 

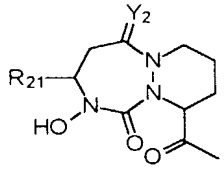
wherein:

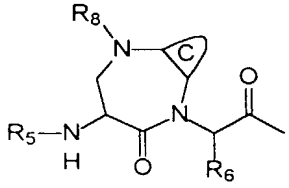
m is 1 or 2;

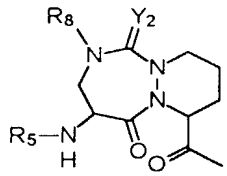
R_1 is selected from the group consisting of the following formulae:

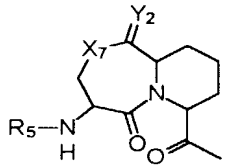
(e10)  , wherein X_5 is N;

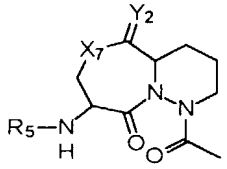
(e11)  ;

(e12)  ;

(w2)  ;

(y1)  ;

(y2)  ;

(z)  ; and

ring C is chosen from the group consisting of benzo, pyrido, thieno, pyrrolo, furano, thiazolo, isothiazolo, oxazolo, isoxazolo, pyrimido, imidazolo, cyclopentyl, and cyclohexyl;

R_3 is selected from the group consisting of:

-CN,

-C(O)-H,

$-C(O)-CH_2-T_1-R_{11}$,

$-C(O)-CH_2-F$,

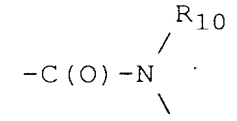
$-C=N-O-R_9$, and

$-CO-Ar_2$;

R_5 is selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,



$-S(O)_2-R_9$,
$-C(O)-CH_2-O-R_9$,
$-C(O)C(O)-R_{10}$,
$-R_9$,
-H, and
$-C(O)C(O)-OR_{10}$,

Y_2 is H_2 or O;

X_7 is $-N(R_8)-$ or -O-;

each T_1 is independently selected from the group consisting of -O-, -S-, -S(O)-, and $-S(O)_2-$;

R_6 is selected from the group consisting of -H and $-CH_3$;

R_8 is selected from the group consisting of:
$-C(O)-R_{10}$,
$-C(O)O-R_9$,
$-C(O)-NH-R_{10}$,
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-OR_{10}$,
$-C(O)C(O)-R_{10}$,
$-C(O)-CH_2-N(R_{10})(R_{10})$,
$-C(O)-CH_2C(O)-O-R_9$,
$-C(O)-CH_2C(O)-R_9$,
-H, and
$-C(O)-C(O)-OR_{10}$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{11} is independently selected from the group consisting of:

$-Ar_4$,

$-(CH_2)_{1-3}-Ar_4$,

-H, and

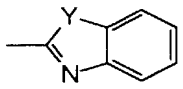
$-C(O)-Ar_4$;

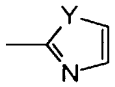
R_{13} is selected from the group consisting of H, Ar_3, and a C_{1-6} straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

OR_{13} is optionally -N(H)-OH;

each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

Ar_2 is independently selected from the following group, in which any ring may optionally be singly or multiply substituted by $-Q_1$ or phenyl, optionally substituted by Q_1:

(hh)  , and

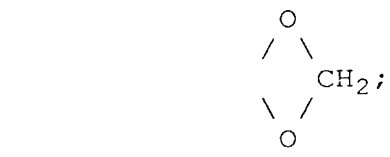
(ii)  ,

wherein each Y is independently selected from the group consisting of O and S;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings, and a heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-NHR_9$, $-R_9$, $-C(O)-R_{10}$, and



provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

9. The compound according to claim 8, wherein R_1 is (e11).

10. The compound according to claim 8, wherein R_1 is (e12).

11. The compound according to claim 8, wherein R_1 is (y1).

12. The compound according to claim 8, wherein R_1 is (y2).

13. The compound according to claim 8, wherein and R_1 is (z).

14. The compound according to claim 8, wherein R_1 is (w2).

15. The compound according to claim 14, wherein:

m is 1;

ring C is benzo, pyrido, or thieno;

R_3 is selected from the group consisting of $-C(O)-H$, $-C(O)-Ar_2$, and $-C(O)CH_2-T_1-R_{11}$;

R_5 is selected from the group consisting of:
$-C(O)-R_{10}$, wherein R_{10} is $-Ar_3$;
$-C(O)O-R_9$, wherein R_9 is $-CH_2-Ar_3$;
$-C(O)C(O)-R_{10}$, wherein R_{10} is $-Ar_3$;
$-R_9$, wherein R_9 is a C_{1-2} alkyl group substituted with $-Ar_3$; and
$-C(O)C(O)-OR_{10}$, wherein R_{10} is $-CH_2Ar_3$;

T_1 is O or S;

R_6 is H;

R_8 is selected from the group consisting $-C(O)-R_{10}$, $-C(O)-CH_2-OR_{10}$, and $-C(O)CH_2-N(R_{10})(R_{10})$, wherein R_{10} is H, CH_3, or $-CH_2CH_3$;

R_{11} is selected from the group consisting of $-Ar_4$, $-(CH_2)_{1-3}-Ar_4$, and $-C(O)-Ar_4$;

R_{13} is H or a C_{1-4} straight or branched alkyl group optionally substituted with $-Ar_3$, $-OH$, $-OR_9$, $-CO_2H$, wherein the R_9 is a C_{1-4} branched or straight chain alkyl group; wherein Ar_3 is morpholinyl or phenyl, wherein the phenyl is optionally substituted with Q_1;

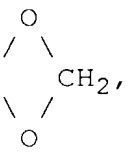
Ar_2 is (hh);

Y is O;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, thiazolyl, benzimidazolyl, thienothienyl, thiadiazolyl, benzotriazolyl, benzo[b]thiophenyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 cyclic group is independently selected from the set consisting of phenyl, tetrazolyl, naphthyl, pyridinyl, oxazolyl, pyrimidinyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, -Cl, -F, -Br, -OH, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and



wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

16. The compound according to claim 8, wherein R_1 is (e10) and X_5 is N.

17. The compound according to claim 16, wherein R_3 is $CO-Ar_2$.

18. The compound according to claim 16, wherein R_3 is $-C(O)-CH_2-T_1-R_{11}$ and R_{11} is $-(CH_2)_{1-3}-Ar_4$.

19. The compound according to claim 16, wherein:

R_3 is $-C(O)-CH_2-T_1-R_{11}$;

T_1 is O; and

R_{11} is $-C(O)-Ar_4$.

20. The compound according to claim 16, wherein R_3 is $-C(O)-H$.

21. The compound according to claim 16, wherein R_3 is $-CO-CH_2-T_1-R_{11}$ and R_{11} is $-Ar_4$.

22. The compound according to any one of claims 19-21, wherein R_5 is selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$, and

$-C(O)-NH-R_{10}$.

23. The compound according to claim 22, wherein:

m is 1;

T_1 is O or S,

provided that when R_3 is $-C(O)-CH_2-T_1-R_{11}$, T_1 is O;

R_{13} is H or a C_{1-4} straight or branched alkyl group optionally substituted with $-Ar_3$, $-OH$, $-OR_9$, $-CO_2H$, wherein the R_9 is a C_{1-4} branched or straight chain alkyl group; wherein Ar_3 is morpholinyl or phenyl, wherein the phenyl is optionally substituted with Q_1;

R_{21} is $-H$ or $-CH_3$;

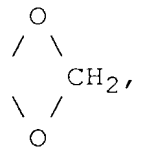
Ar_2 is (hh);

Y is O;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, pyrazolyl, thiazolyl, isoxazolyl, benzotriazolyl, benzimidazolyl, thienothienyl, imidazolyl, thiadiazolyl, benzo[b]thiophenyl, pyridyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 cyclic group is independently selected from the set consisting of phenyl, tetrazolyl, pyridinyl, oxazolyl, naphthyl, pyrimidinyl, and thienyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-Cl$, $-F$, $-Br$, $-OH$, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and



wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

24. The compound according to any one of claims 19-21, wherein R_5 is selected from the group consisting of:

$-S(O)_2-R_9$,

$-S(O)_2-NH-R_{10}$,

$-C(O)-C(O)-R_{10}$,

$-R_9$, and

$-C(O)-C(O)-OR_{10}$.

25. The compound according to claim 24, wherein:

m is 1;

T_1 is O or S,

provided that when R_3 is $-C(O)-CH_2-T_1-R_{11}$, T_1 is O;

R_{13} is H or a C_{1-4} straight or branched alkyl group optionally substituted with $-Ar_3$, $-OH$, $-OR_9$, $-CO_2H$,

wherein the R_9 is a C_{1-4} branched or straight chain alkyl group; wherein Ar_3 is morpholinyl or phenyl, wherein the phenyl is optionally substituted with Q_1;

R_{21} is -H or $-CH_3$;

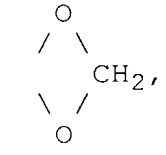
Ar_2 is (hh);

Y is O;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, pyrazolyl, thiazolyl, isoxazolyl, benzotriazolyl, benzimidazolyl, thienothienyl, imidazolyl, thiadiazolyl, benzo[b]thiophenyl, pyridyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 cyclic group is independently selected from the set consisting of phenyl, tetrazolyl, pyridinyl, oxazolyl, naphthyl, pyrimidinyl, and thienyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

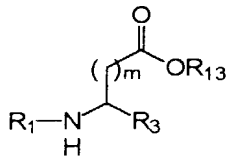
each Q_1 is independently selected from the group consisting of $-NH_2$, -Cl, -F, -Br, -OH, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and



wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

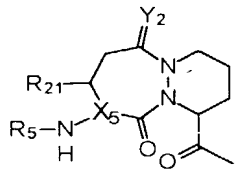
26. A compound represented by the formula:

(II) 

wherein:

m is 1 or 2;

R_1 is:

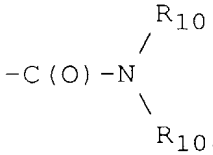
(e10)  ;

R_3 is $-CO-Ar_2$;

R_5 is selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,



$-S(O)_2-R_9$,
$-C(O)-CH_2-O-R_9$,
$-C(O)C(O)-R_{10}$,
$-R_9$,
-H, and
$-C(O)C(O)-OR_{10}$,

X_5 is CH;

Y_2 is H_2 or O;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

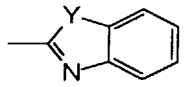
R_{13} is selected from the group consisting of H, Ar_3, and a C_{1-6} straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

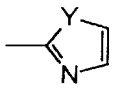
OR_{13} is optionally -N(H)-OH;

each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

Ar_2 is independently selected from the following

group, in which any ring may optionally be singly or multiply substituted by $-Q_1$ or phenyl, optionally substituted by Q_1:

(hh)  , and

(ii)  ,

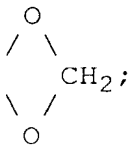
wherein each Y is independently selected from the group consisting of O and S;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings, and a heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally

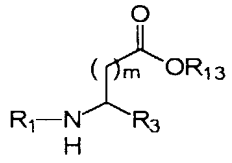
containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-NHR_9$, $-R_9$, $-C(O)-R_{10}$, and



provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

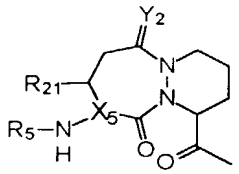
27. A compound represented by the formula:

(II) 

wherein:

m is 1 or 2;

R_1 is:

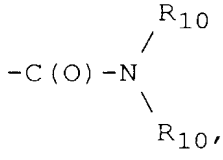
(e10)  ;

R_3 is $-C(O)-CH_2-T_1-R_{11}$ and R_{11} is $-(CH_2)_{1-3}-Ar_4$;

R_5 is selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,



$-S(O)_2-R_9$,

$-C(O)-CH_2-O-R_9$,

$-C(O)C(O)-R_{10}$,

$-R_9$,

-H, and

$-C(O)C(O)-OR_{10}$,

X_5 is CH;

Y_2 is H_2 or O;

each T_1 is independently selected from the group consisting of -O-, -S-, -S(O)-, and $-S(O)_2-$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group

consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

R_{13} is selected from the group consisting of H, Ar_3, and a C_{1-6} straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

OR_{13} is optionally -N(H)-OH;

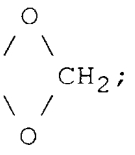
each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings, and a heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said

heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, $-R_5$, $-OR_5$, $-NHR_5$, $-OR_9$, $-NHR_9$, $-R_9$, $-C(O)-R_{10}$, and



provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

28. The compound according to claims 26 or 27, wherein R_5 is selected from the group consisting of:

$-C(O)-R_{10}$,
$-C(O)O-R_9$, and
$-C(O)-NH-R_{10}$.

29. The compound according to claim 28, wherein:

m is 1;

T_1 is O or S;

R_{13} is H or a C_{1-4} straight or branched alkyl group optionally substituted with $-Ar_3$, $-OH$, $-OR_9$, $-CO_2H$, wherein the R_9 is a C_{1-4} branched or straight chain alkyl group; wherein Ar_3 is morpholinyl or phenyl, wherein the phenyl is optionally substituted with Q_1;

R_{21} is $-H$ or $-CH_3$;

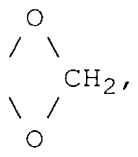
Ar_2 is (hh);

Y is O;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, pyrazolyl, thiazolyl, isoxazolyl, benzotriazolyl, benzimidazolyl, thienothienyl, imidazolyl, thiadiazolyl, benzo[b]thiophenyl, pyridyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 cyclic group is independently selected from the set consisting of phenyl, tetrazolyl, pyridinyl, oxazolyl, naphthyl, pyrimidinyl, and thienyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-Cl$, $-F$, $-Br$, $-OH$, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and



wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

30. The compound according to claims 26 or 27, wherein R_5 is selected from the group consisting of:

$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-C(O)-R_{10}$,
$-R_9$, and
$-C(O)-C(O)-OR_{10}$.

31. The compound according to claim 30, wherein:

m is 1;

T_1 is O or S;

R_{13} is H or a C_{1-4} straight or branched alkyl group optionally substituted with $-Ar_3$, $-OH$, $-OR_9$, $-CO_2H$, wherein the R_9 is a C_{1-4} branched or straight chain alkyl group; wherein Ar_3 is morpholinyl or phenyl,

wherein the phenyl is optionally substituted with Q_1;

R_{21} is -H or $-CH_3$;

Ar_2 is (hh);

Y is O;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, pyrazolyl, thiazolyl, isoxazolyl, benzotriazolyl, benzimidazolyl, thienothienyl, imidazolyl, thiadiazolyl, benzo[b]thiophenyl, pyridyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 cyclic group is independently selected from the set consisting of phenyl, tetrazolyl, pyridinyl, oxazolyl, naphthyl, pyrimidinyl, and thienyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

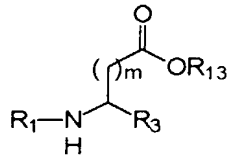
each Q_1 is independently selected from the group consisting of $-NH_2$, -Cl, -F, -Br, -OH, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and

wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted

with $-Ar_3$ wherein Ar_3 is phenyl;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

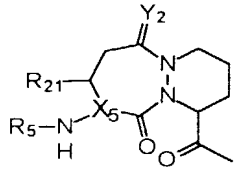
32. A compound represented by the formula:

(II) 

wherein:

m is 1 or 2;

R_1 is:

(e10)  ;

R_3 is $-C(O)-CH_2-T_1-R_{11}$; T_1 is O; and R_{11} is $-C(O)-Ar_4$;

R_5 is selected from the group consisting of:

$-S(O)_2-R_9$,

$-S(O)_2-NH-R_{10}$,

$-C(O)-C(O)-R_{10}$,

$-R_9$, and

$-C(O)-C(O)-OR_{10}$;

X_5 is CH;

Y_2 is H_2 or O;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

R_{13} is selected from the group consisting of H, Ar_3, and a C_{1-6} straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

OR_{13} is optionally -N(H)-OH;

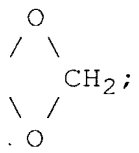
each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings,

and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

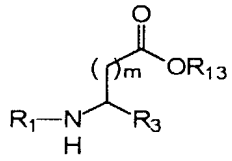
each Ar_4 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings, and a heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-NHR_9$, $-R_9$, $-C(O)-R_{10}$, and



provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

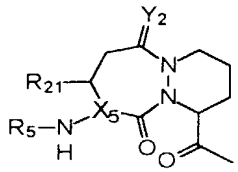
33. A compound represented by the formula:

(II) 

wherein:

m is 1 or 2;

R_1 is:

(e10)  ;

R_3 is -C(O)-H;

R_5 is selected from the group consisting of:
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-C(O)-R_{10}$,
$-R_9$, and
$-C(O)-C(O)-OR_{10}$;

X_5 is CH;

Y_2 is H_2 or O;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a

$-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

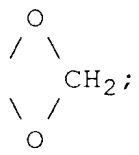
R_{13} is selected from the group consisting of H, Ar_3, and a C_{1-6} straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

OR_{13} is optionally -N(H)-OH;

each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-NHR_9$, $-R_9$, $-C(O)-R_{10}$, and



provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

34. The compound according to claims 32 or 33, wherein:

m is 1;

R_{13} is H or a C_{1-4} straight or branched alkyl group optionally substituted with $-Ar_3$, $-OH$, $-OR_9$, $-CO_2H$, wherein the R_9 is a C_{1-4} branched or straight chain alkyl group; wherein Ar_3 is morpholinyl or phenyl, wherein the phenyl is optionally substituted with Q_1;

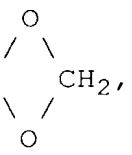
R_{21} is $-H$ or $-CH_3$;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, pyrazolyl, thiazolyl, isoxazolyl, benzotriazolyl, benzimidazolyl, thienothienyl, imidazolyl, thiadiazolyl, benzo[b]thiophenyl, pyridyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 cyclic group is independently selected from the set consisting of phenyl, tetrazolyl,

pyridinyl, oxazolyl, naphthyl, pyrimidinyl, and thienyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

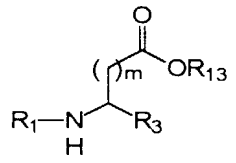
each Q_1 is independently selected from the group consisting of $-NH_2$, -Cl, -F, -Br, -OH, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and



wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

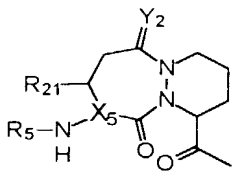
35. A compound represented by the formula:

(II) 

wherein:

m is 1;

R_1 is:

(e10)  ;

R_3 is $-CO-CH_2-T_1-R_{11}$ and R_{11} is $-Ar_4$;

R_5 is selected from the group consisting of:
$-C(O)-R_{10}$,
$-C(O)O-R_9$, and
$-C(O)-NH-R_{10}$;

X_5 is CH;

Y_2 is O;

T_1 is O or S;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

R_{13} is H or a C_{1-4} straight or branched alkyl group optionally substituted with $-Ar_3$, -OH, $-OR_9$, $-CO_2H$, wherein the R_9 is a C_{1-4} branched or straight chain alkyl group; wherein Ar_3 is morpholinyl or phenyl,

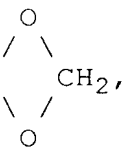
wherein the phenyl is optionally substituted with Q_1;

R_{21} is -H or $-CH_3$;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, pyrazolyl, thiazolyl, isoxazolyl, benzotriazolyl, benzimidazolyl, thienothienyl, imidazolyl, thiadiazolyl, benzo[b]thiophenyl, pyridyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 cyclic group is independently selected from the set consisting of phenyl, tetrazolyl, pyridinyl, oxazolyl, naphthyl, pyrimidinyl, and thienyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, -Cl, -F, -Br, -OH, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and

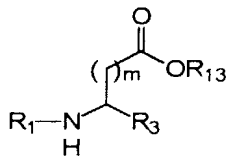


wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$

groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

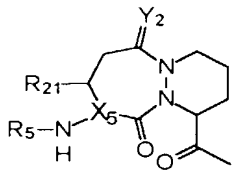
36. A compound represented by the formula:

(II) 

wherein:

m is 1;

R_1 is:

(e10)  ;

R_3 is $-CO-CH_2-T_1-R_{11}$ and R_{11} is $-Ar_4$;

R_5 is selected from the group consisting of:
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-C(O)-R_{10}$,
$-R_9$, and
$-C(O)-C(O)-OR_{10}$;

X_5 is CH;

Y_2 is O;

T_1 is O or S;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

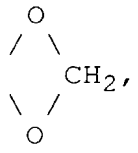
R_{13} is H or a C_{1-4} straight or branched alkyl group optionally substituted with $-Ar_3$, -OH, $-OR_9$, $-CO_2H$, wherein the R_9 is a C_{1-4} branched or straight chain alkyl group; wherein Ar_3 is morpholinyl or phenyl, wherein the phenyl is optionally substituted with Q_1;

R_{21} is -H or $-CH_3$;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, pyrazolyl, thiazolyl, isoxazolyl, benzotriazolyl, benzimidazolyl, thienothienyl, imidazolyl, thiadiazolyl, benzo[b]thiophenyl, pyridyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 cyclic group is independently selected from the set consisting of phenyl, tetrazolyl, pyridinyl, oxazolyl, naphthyl, pyrimidinyl, and thienyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

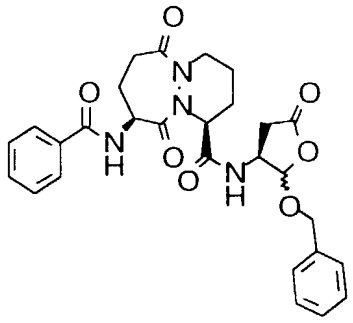
each Q_1 is independently selected from the group consisting of $-NH_2$, -Cl, -F, -Br, -OH, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and

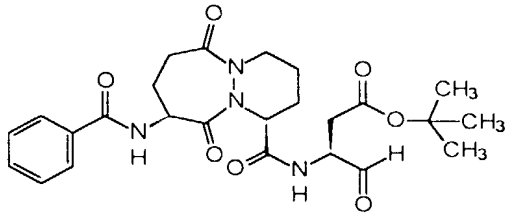


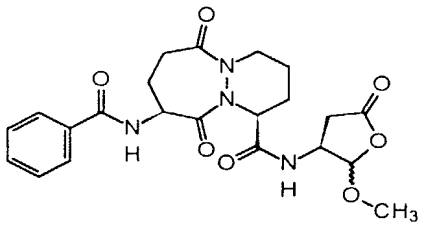
wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

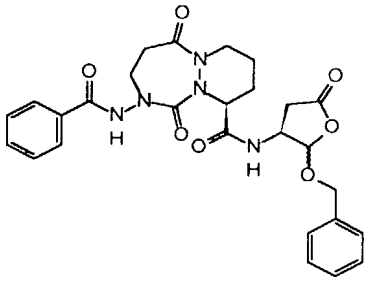
provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

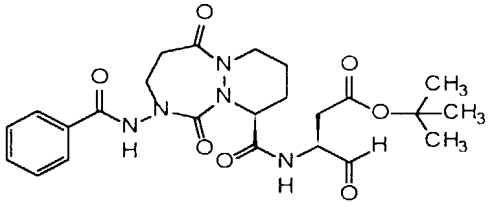
37. The compound according to claim 7 selected from the group consisting of:

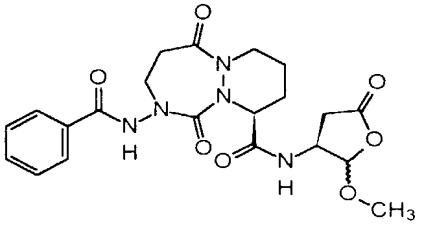
213e  ;

302  ;

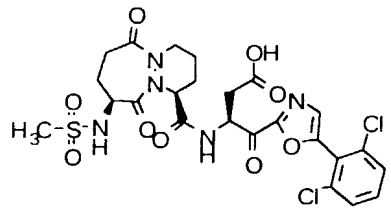
304a  ;

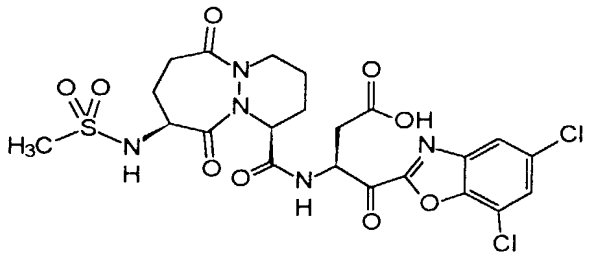
813e  ;

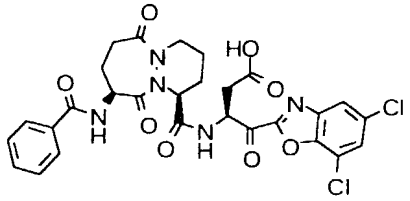
902  ; and

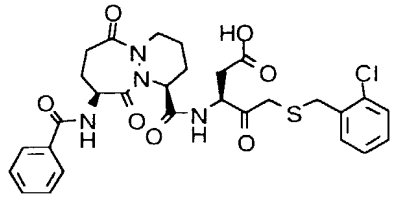
904a  .

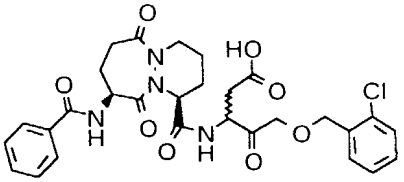
38. The compound according to claims 8 or 68, selected from the group consisting of:

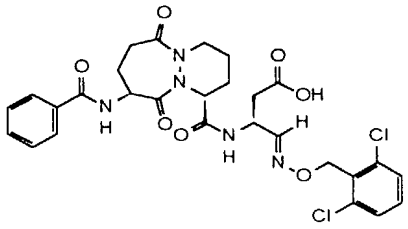
220b  ;

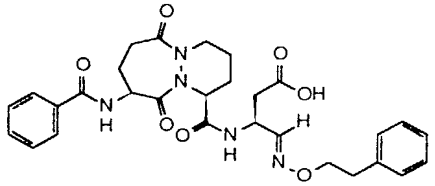
223b  ;

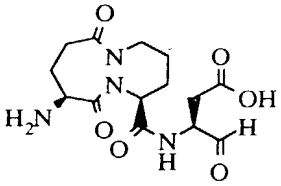
223e  ;

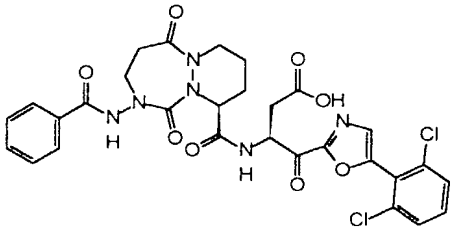
226e  ;

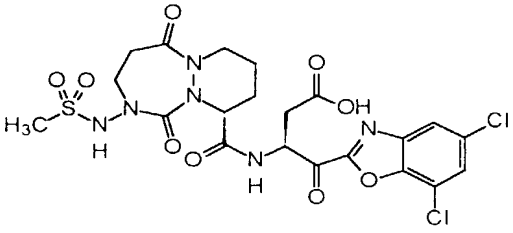
227e  ;

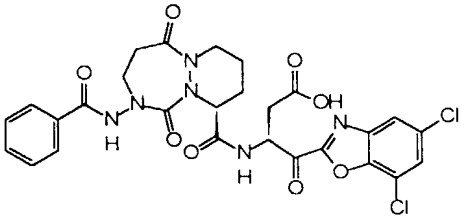
307a  ;

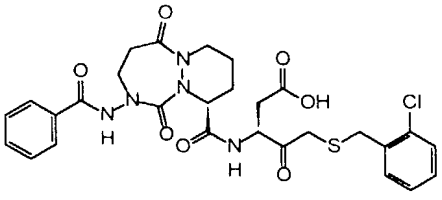
307b  ;

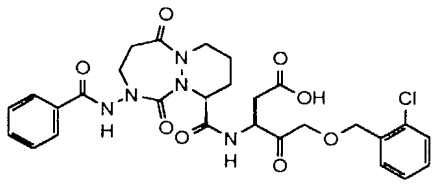
429  ;

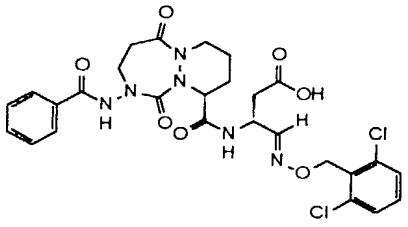
820b  ;

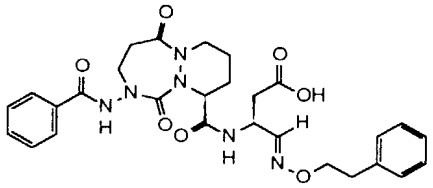
823b  ;

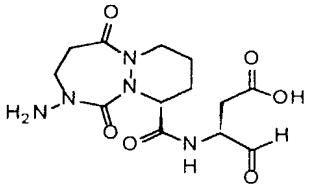
823e  ;

826e  ;

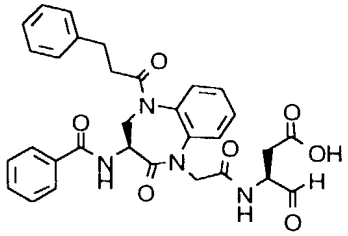
827e  ;

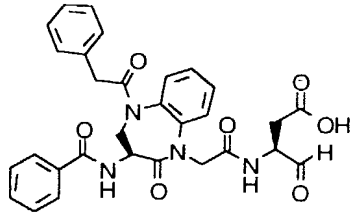
907a  ;

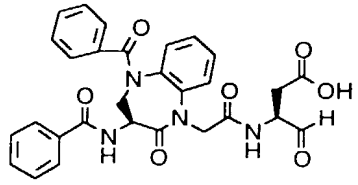
907b  ; and

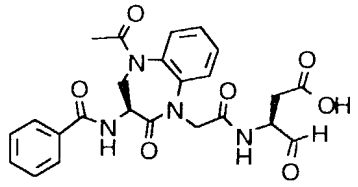
1029  .

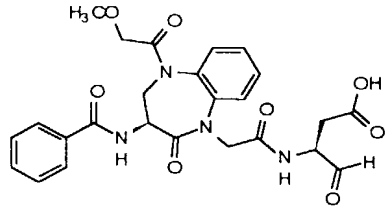
39. The compound according to claim 15 selected from the group consisting of:

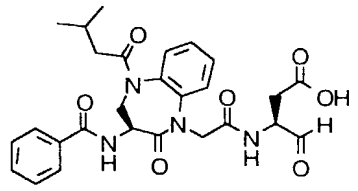
605a  ;

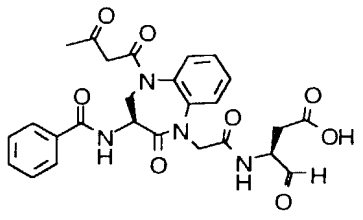
605b  ;

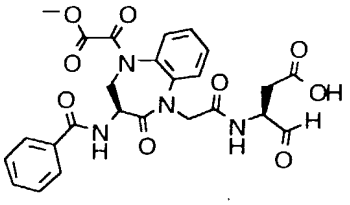
605c  ;

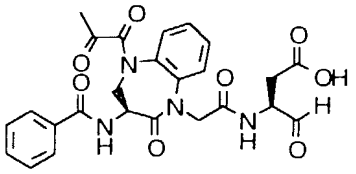
605d  ;

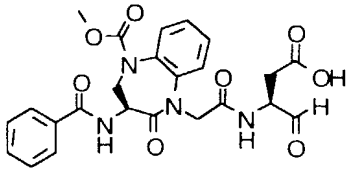
605e  ;

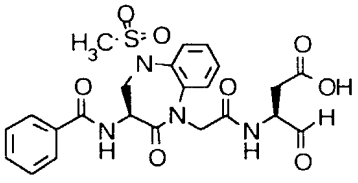
605f  ;

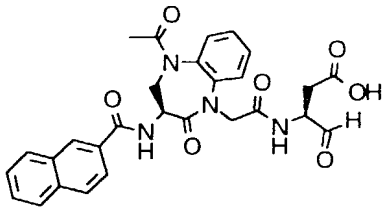
605g  ;

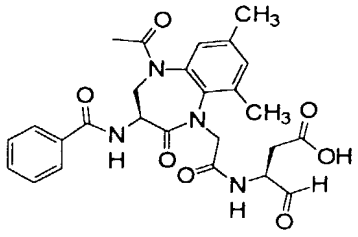
605h  ;

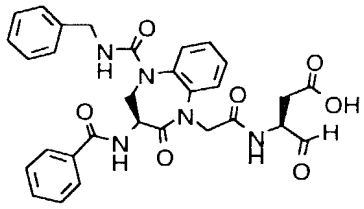
605i  ;

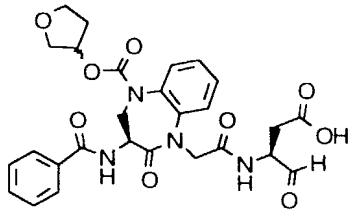
605j  ;

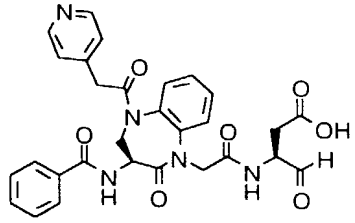
605m  ;

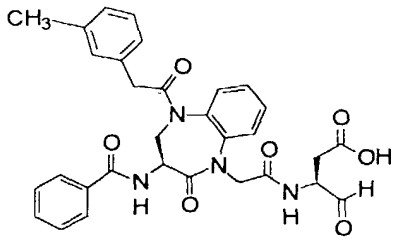
605n  ;

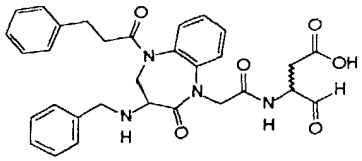
605o  ;

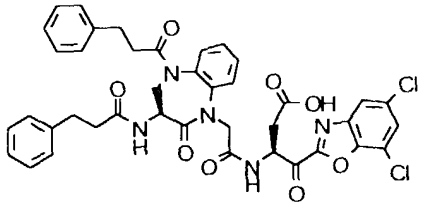
605p  ;

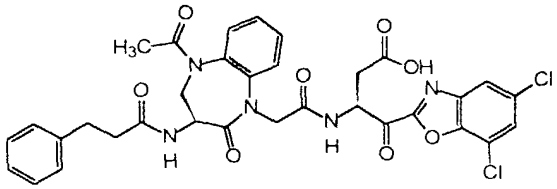
605q  ;

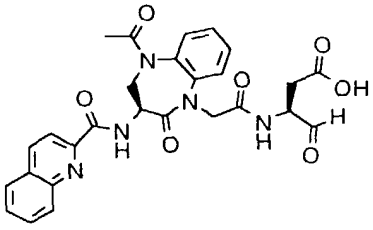
605s  ;

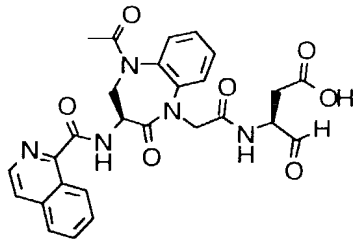
605t  ;

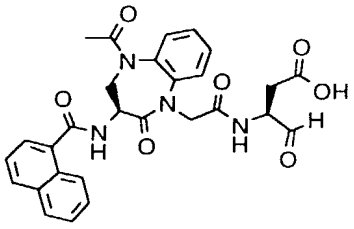
605v  ;

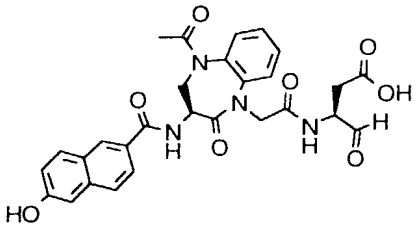
609a  ;

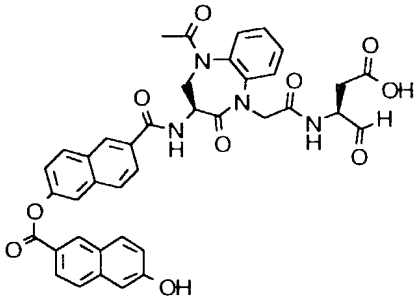
609b  ;

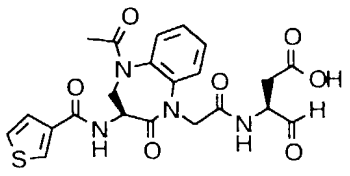
619  ;

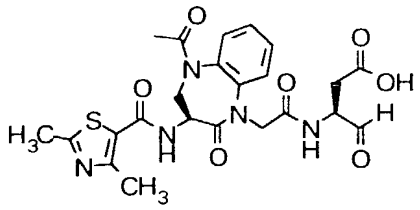
620  ;

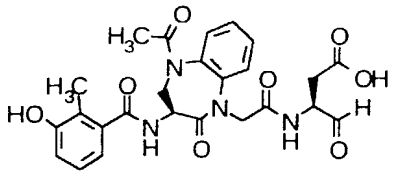
621  ;

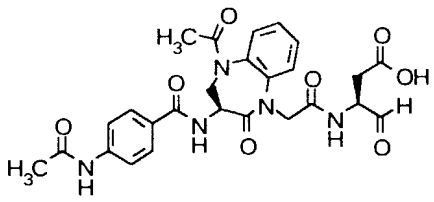
622  ;

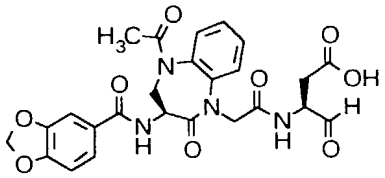
623  ;

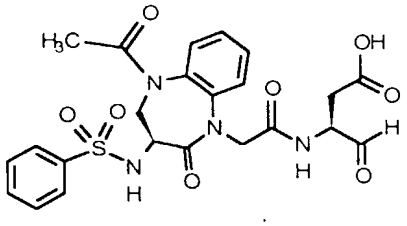
624  ;

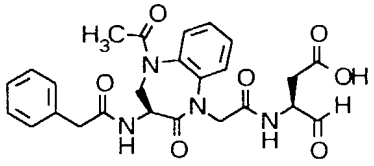
625  ;

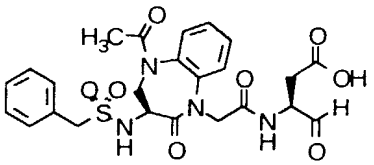
626  ;

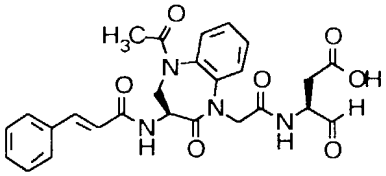
627  ;

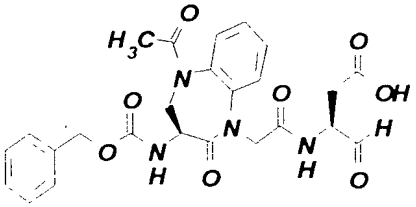
628  ;

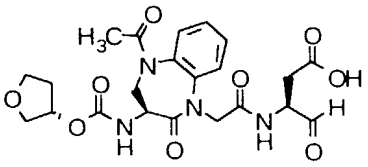
629  ;

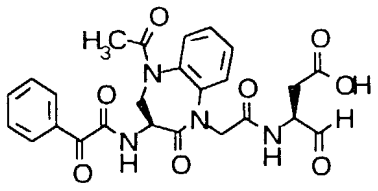
630  ;

631  ;

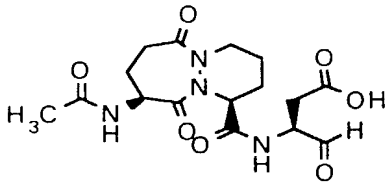
632  ;

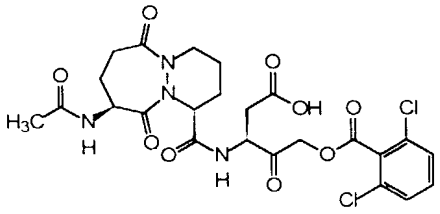
633  ;

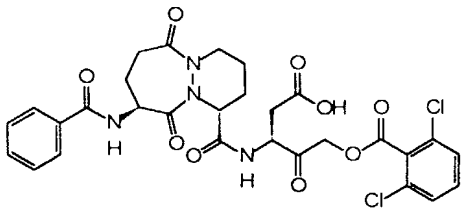
634  ; and

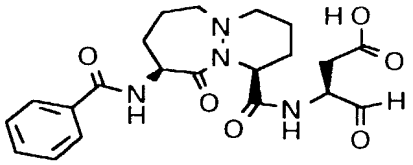
635 

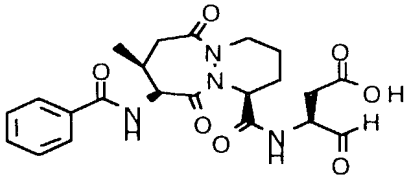
40. The compound according to claims 8 or 68, selected from the group consisting of:

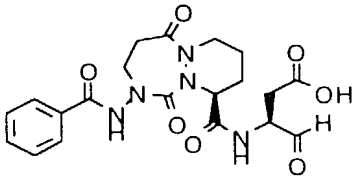
214c  ;

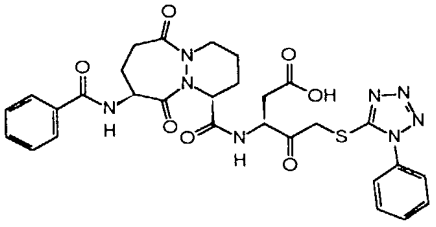
217c  ;

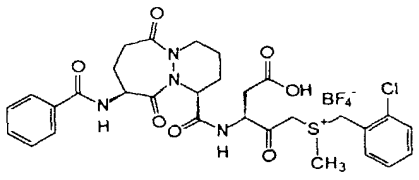
217e  ;

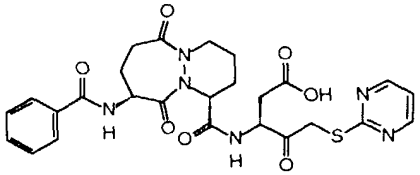
246  ;

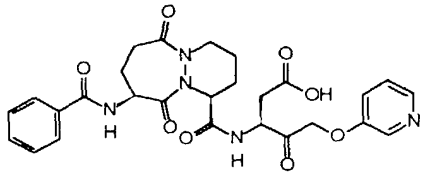
257  ;

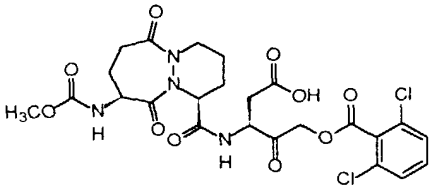
265  ;

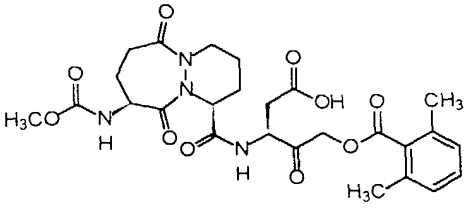
280  ;

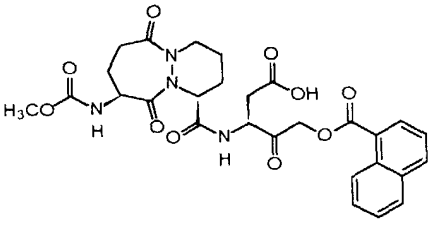
281 

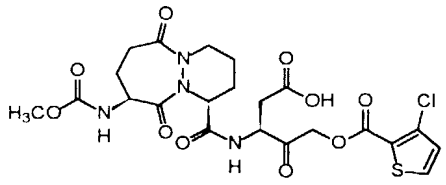
282 

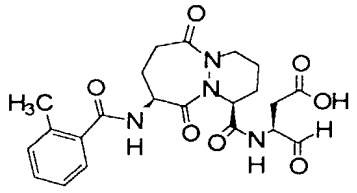
283 

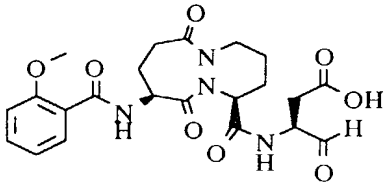
284 

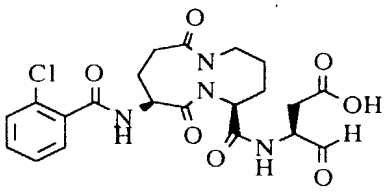
285 

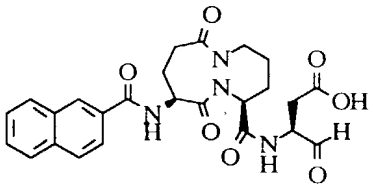
286 

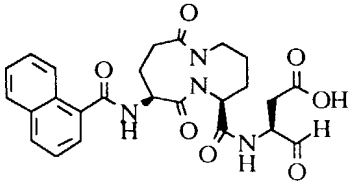
287  ;

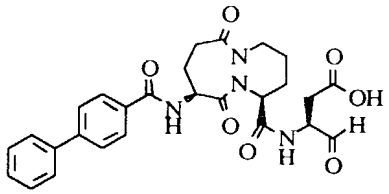
404  ;

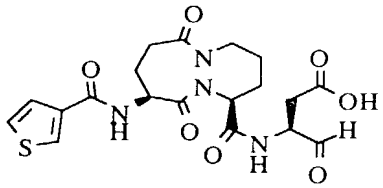
405  ;

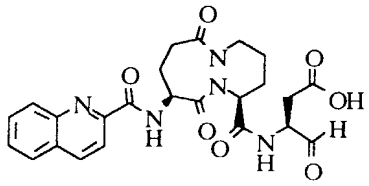
406  ;

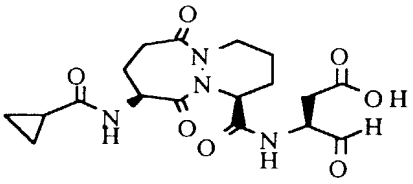
407  ;

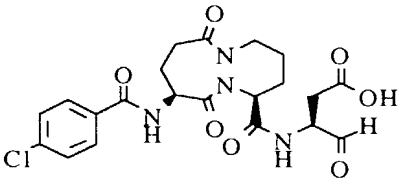
408  ;

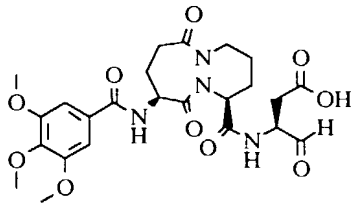
409  ;

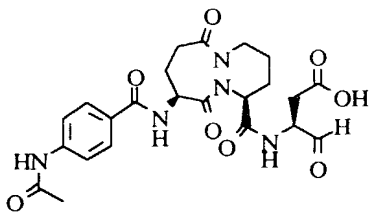
410  ;

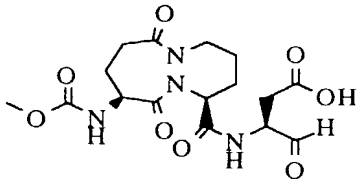
411  ;

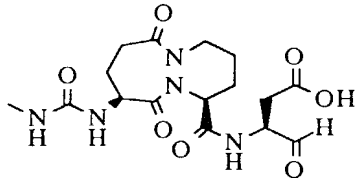
413  ;

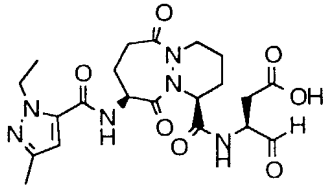
416  ;

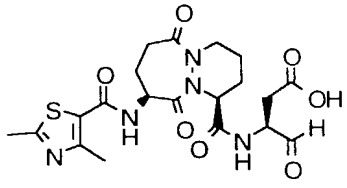
417  ;

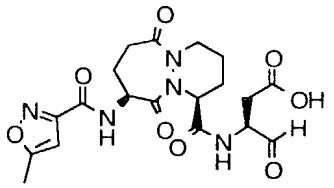
418  ;

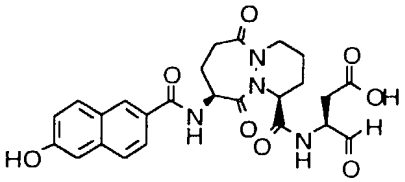
419  ;

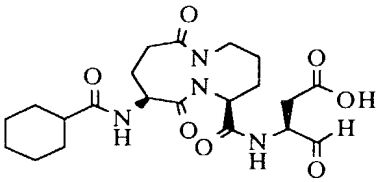
420  ;

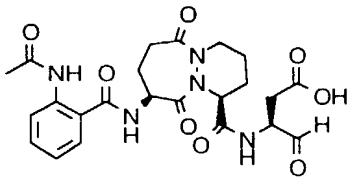
422  ;

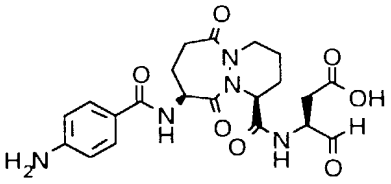
423  ;

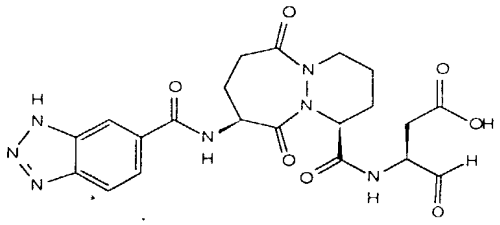
424  ;

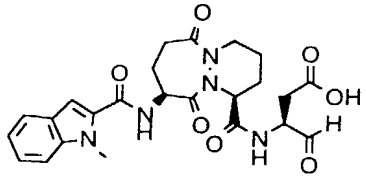
425  ;

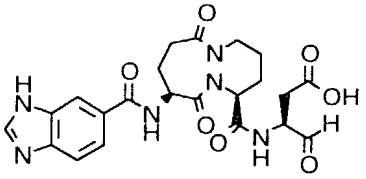
426  ;

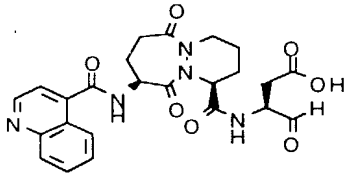
430  ;

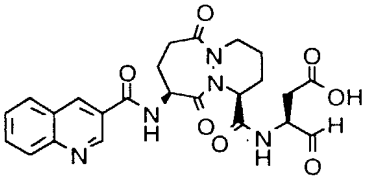
431  ;

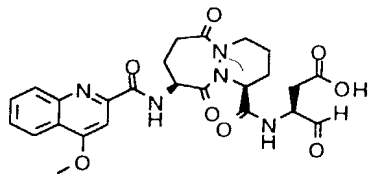
432  ;

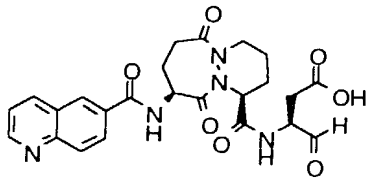
433  ;

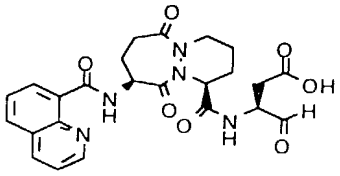
434  ;

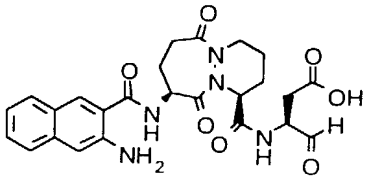
435  ;

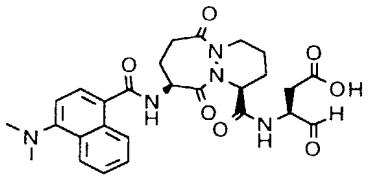
436  ;

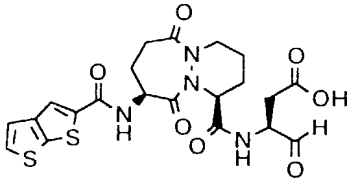
437  ;

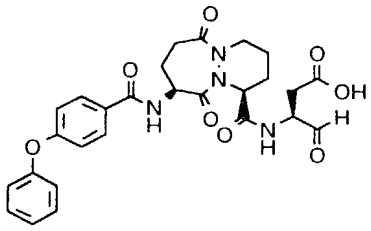
438  ;

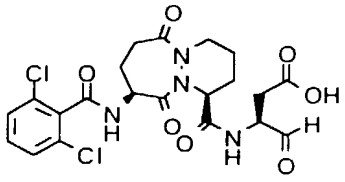
439  ;

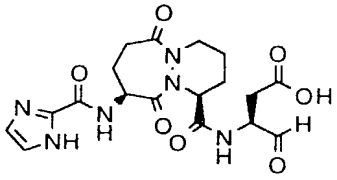
440  ;

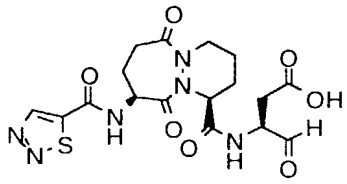
441  ;

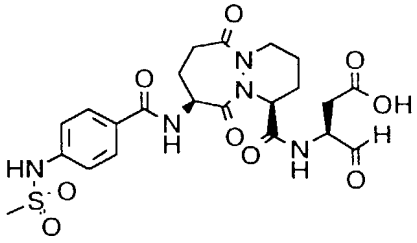
442  ;

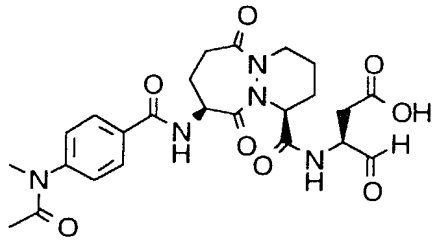
443  ;

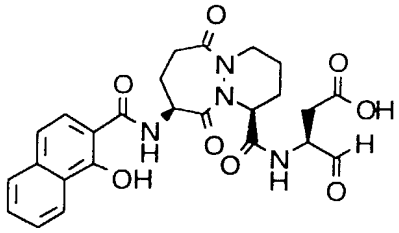
444  ;

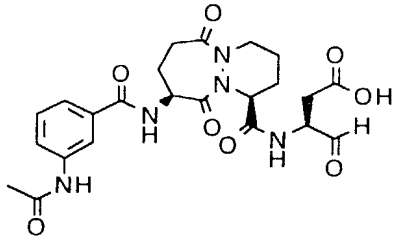
445  ;

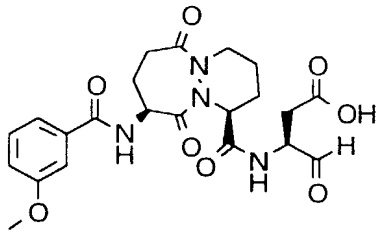
446  ;

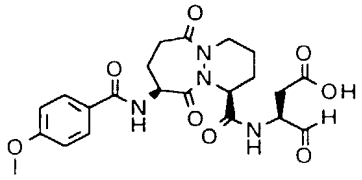
447  ;

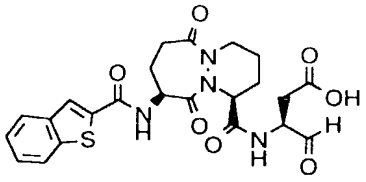
448  ;

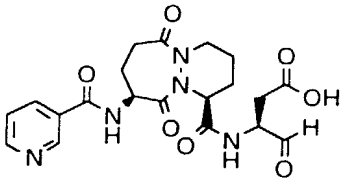
449  ;

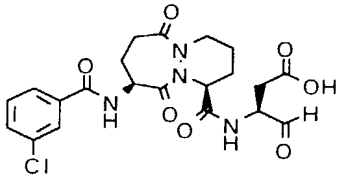
450  ;

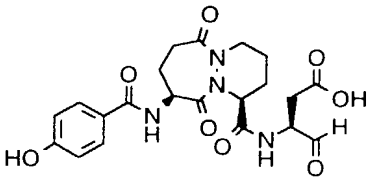
451  ;

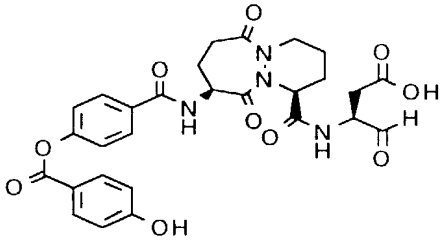
452  ;

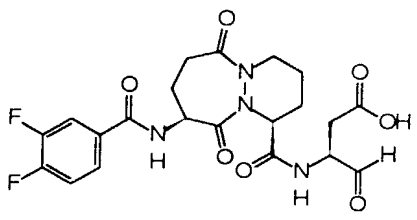
453  ;

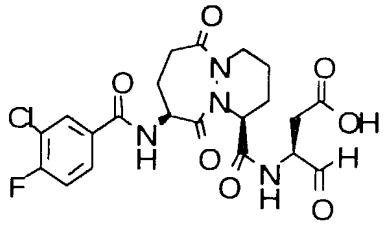
454  ;

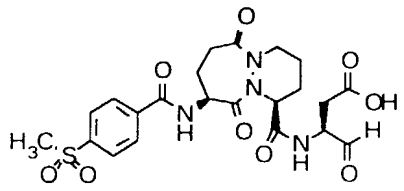
455  ;

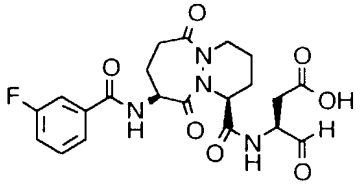
456  ;

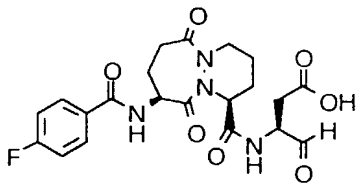
457  ;

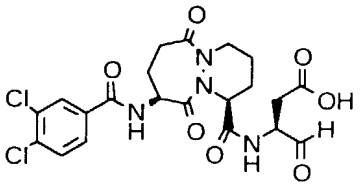
458  ;

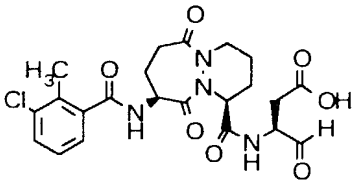
459  ;

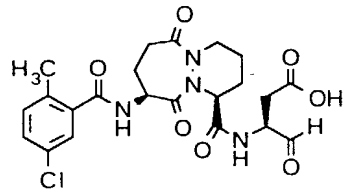
460  ;

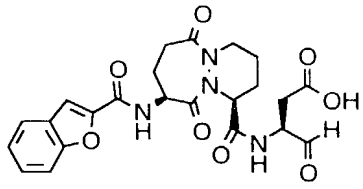
462  ;

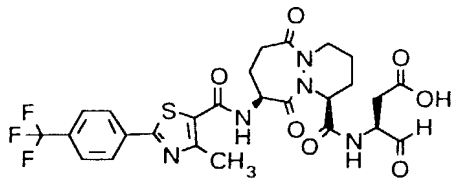
463  ;

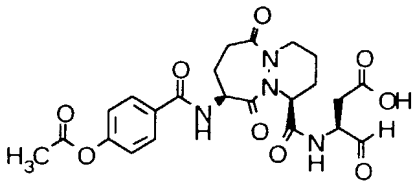
464  ;

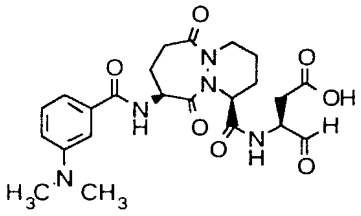
465  ;

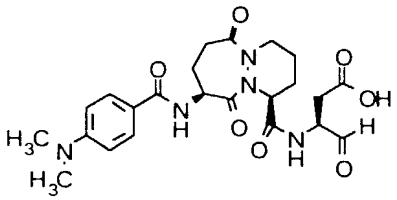
466  ;

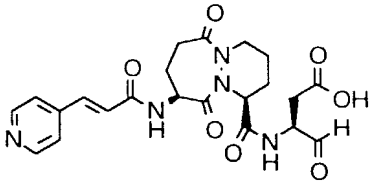
467  ;

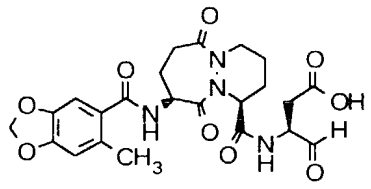
468  ;

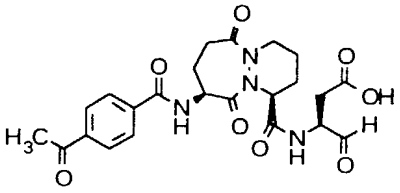
469  ;

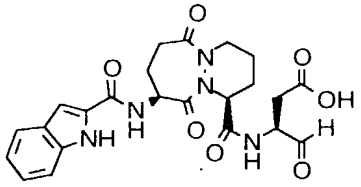
470  ;

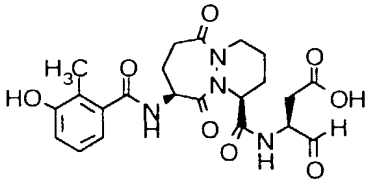
471  ;

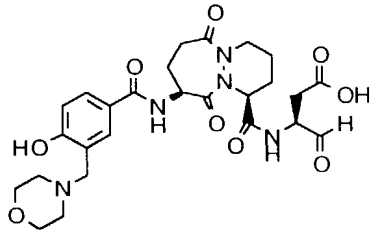
472  ;

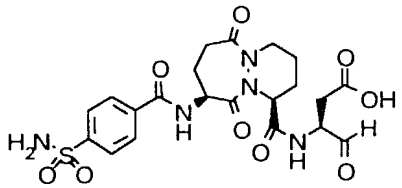
473  ;

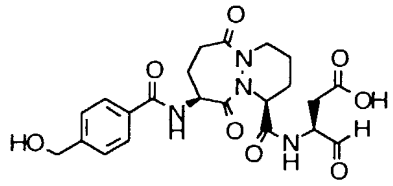
474  ;

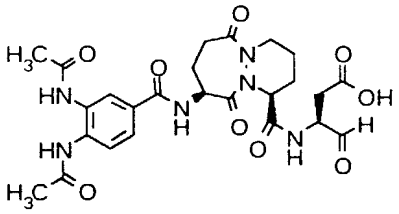
475  ;

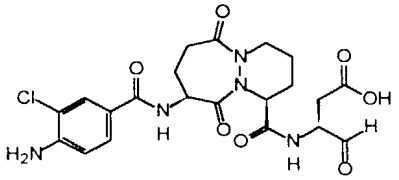
476  ;

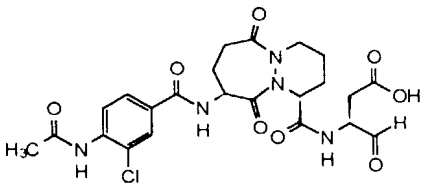
477  ;

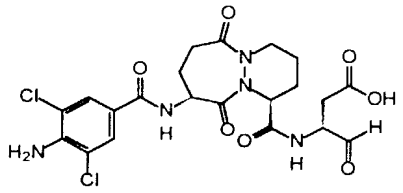
478  ;

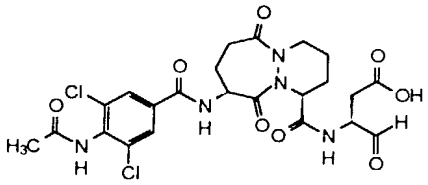
479  ;

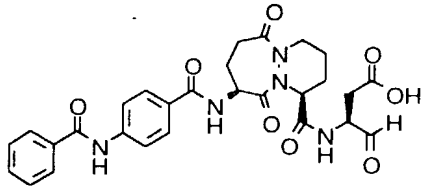
480  ;

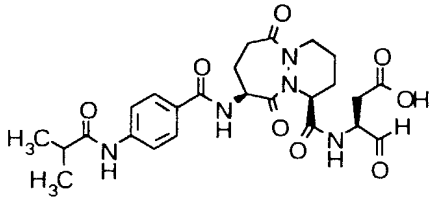
481  ;

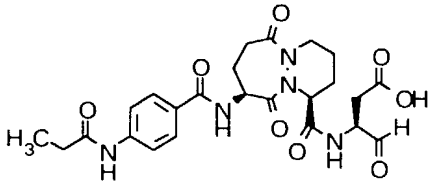
481s  ;

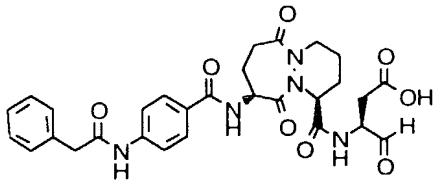
482  ;

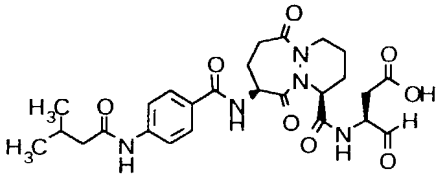
482s  ;

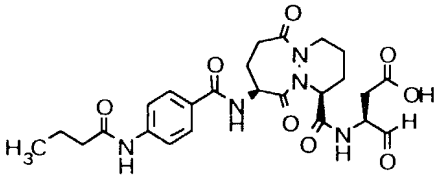
483  ;

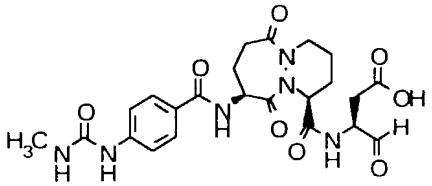
484  ;

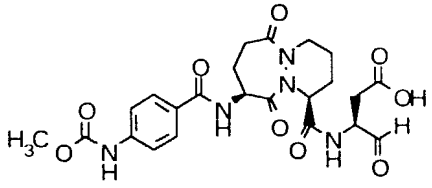
485  ;

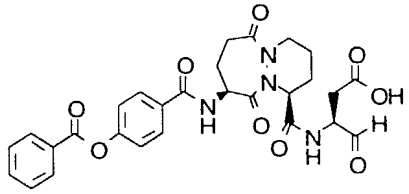
486  ;

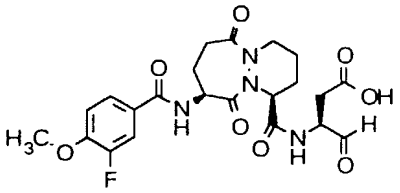
487  ;

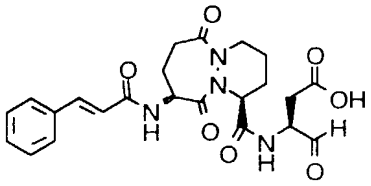
488  ;

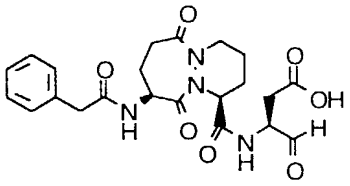
489  ;

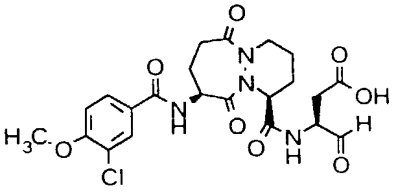
490  ;

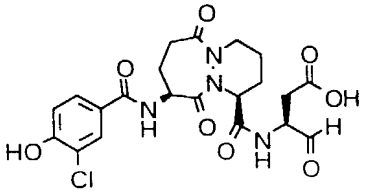
491  ;

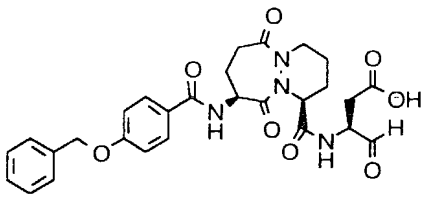
493  ;

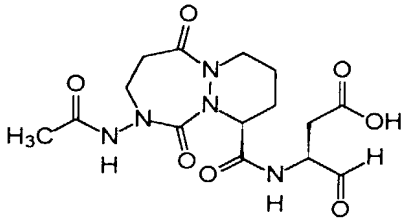
494  ;

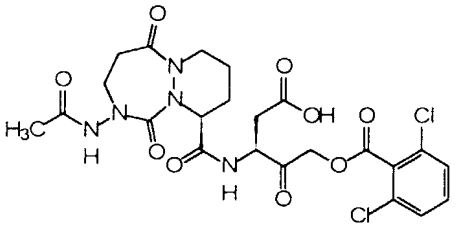
495  ;

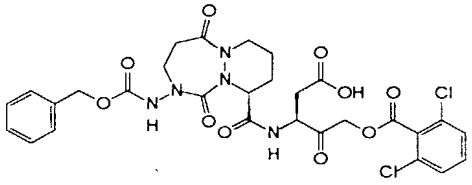
497  ;

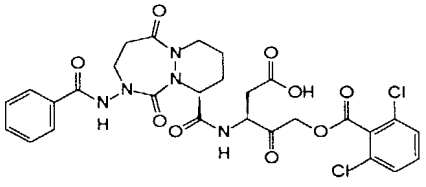
498  ;

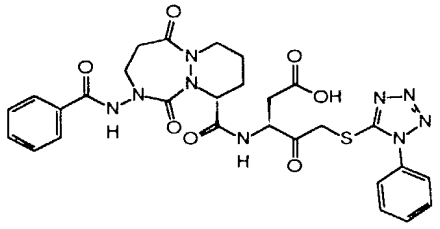
499  ;

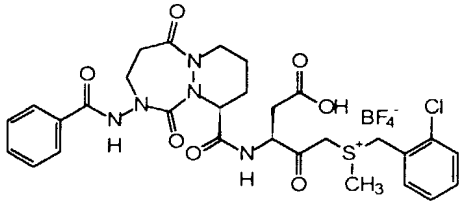
814c  ;

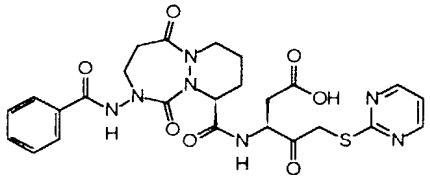
817c  ;

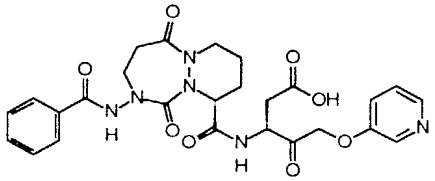
817d  ;

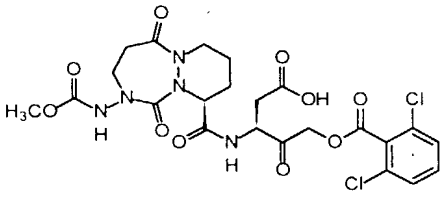
817e  ;

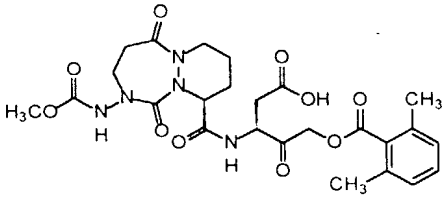
880  ;

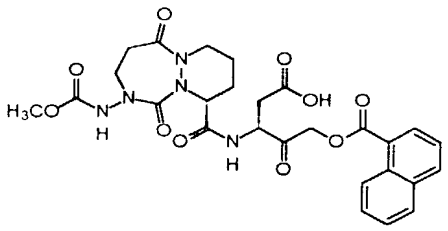
881  ;

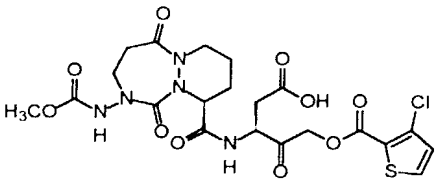
882  ;

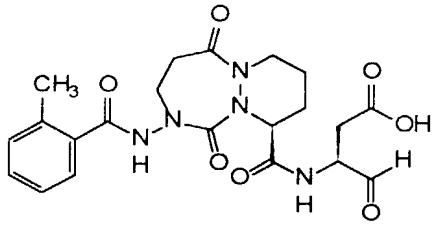
883  ;

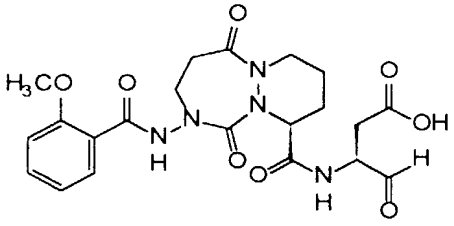
884  ;

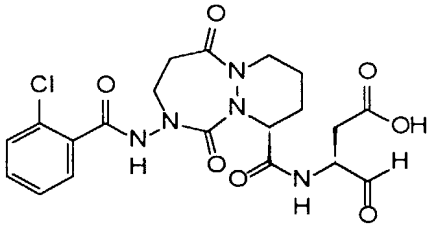
885  ;

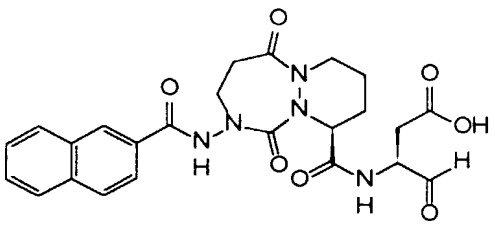
886  ;

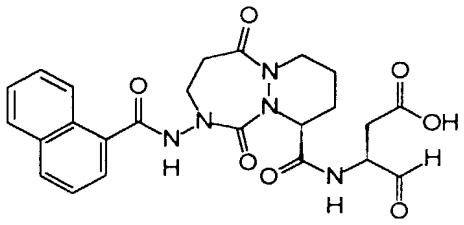
887  ;

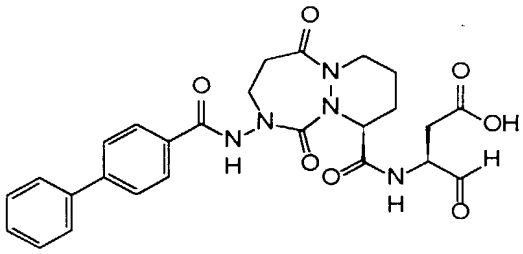
1004  ;

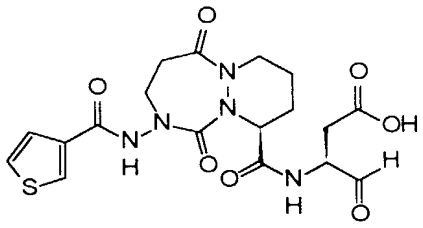
1005  ;

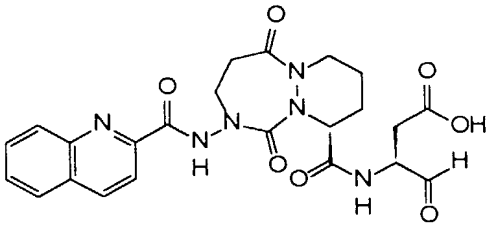
1006  ;

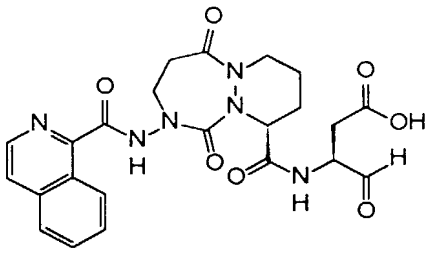
1007  ;

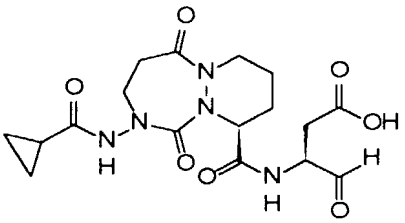
1008  ;

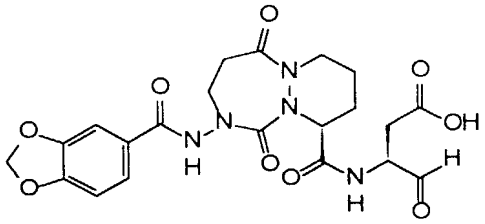
1009  ;

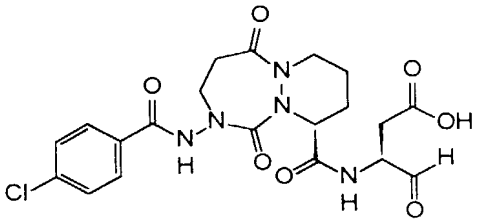
1010  ;

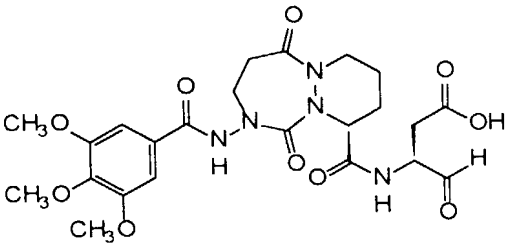
1011  ;

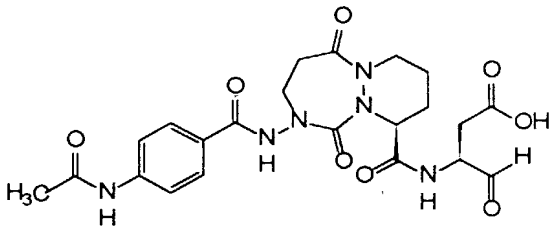
1012  ;

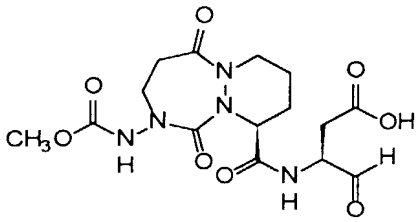
1013  ;

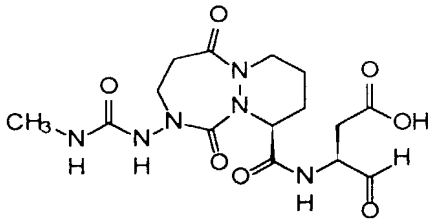
1015  ;

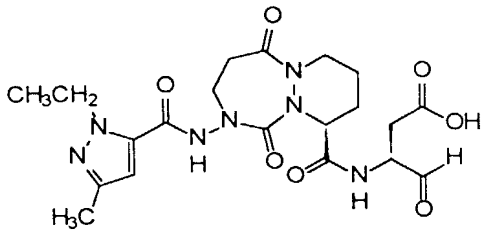
1016  ;

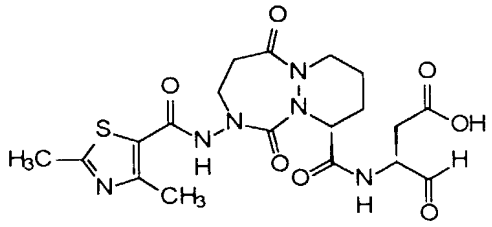
1017  ;

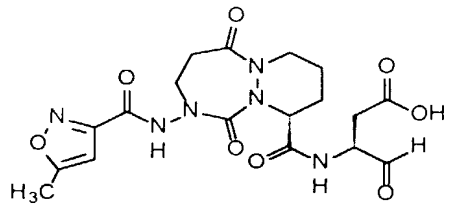
1018  ;

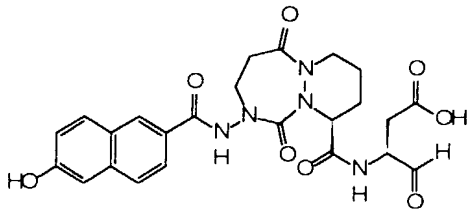
1019  ;

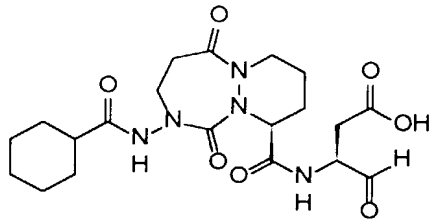
1020  ;

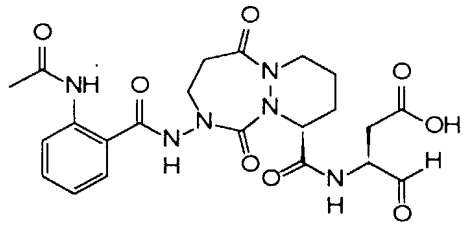
1022  ;

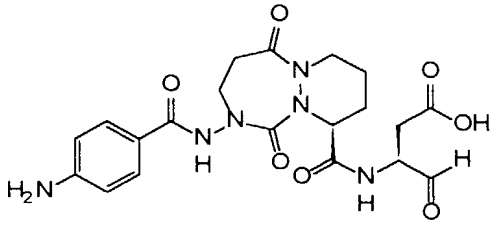
1023  ;

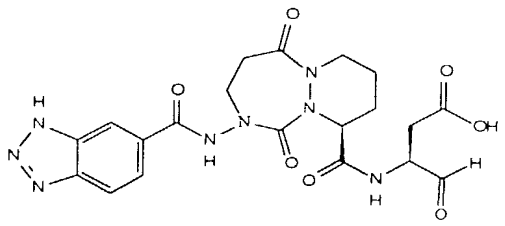
1024  ;

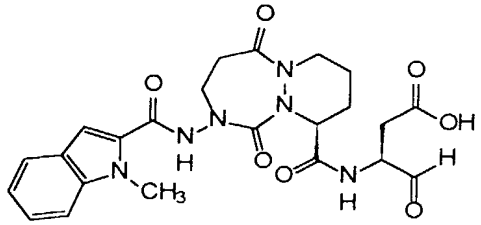
1025  ;

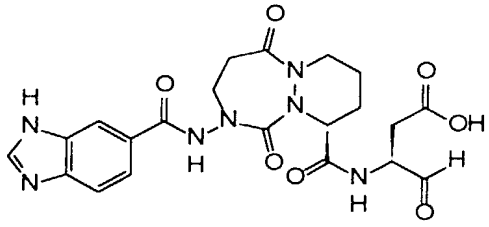
1026  ;

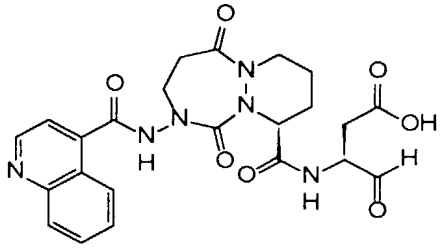
1030  ;

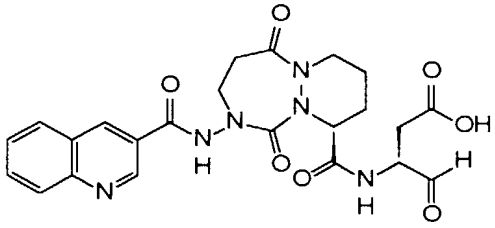
1031  ;

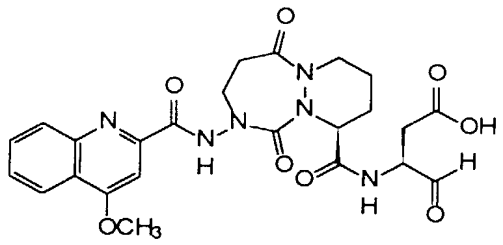
1032  ;

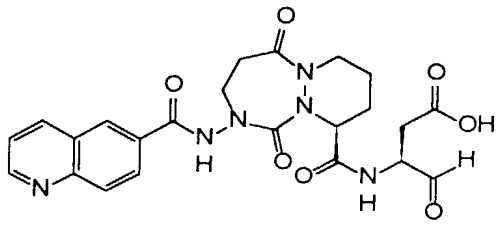
1033  ;

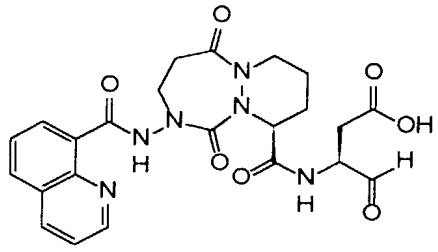
1034  ;

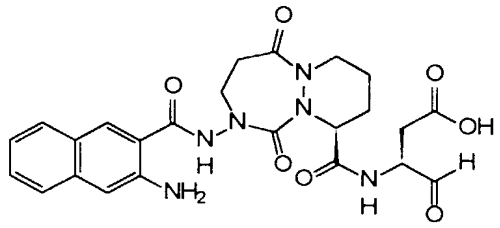
1035  ;

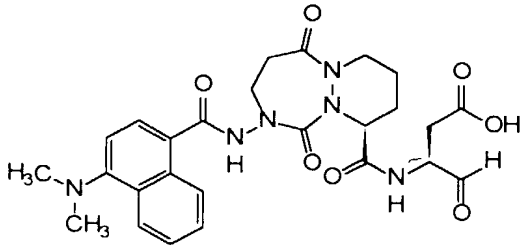
1036  ;

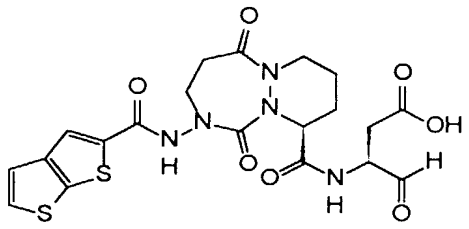
1037  ;

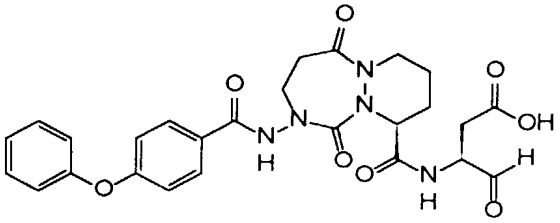
1038  ;

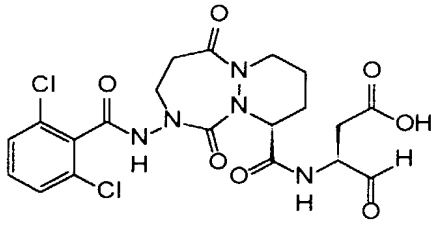
1039  ;

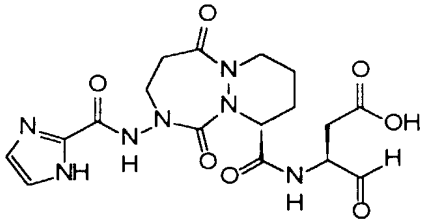
1040  ;

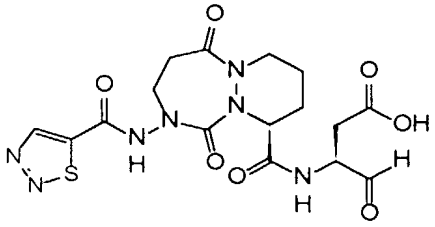
1041  ;

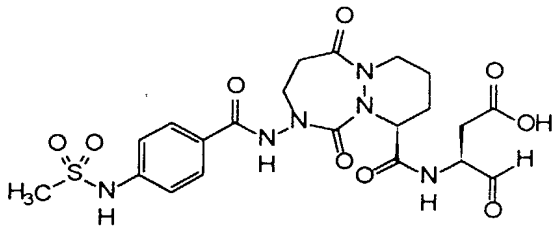
1042  ;

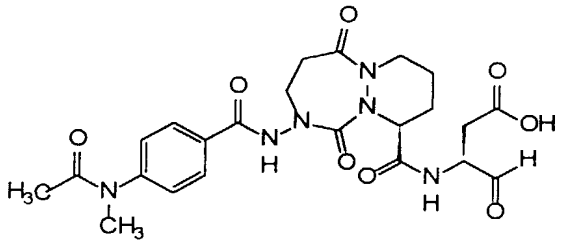
1043  ;

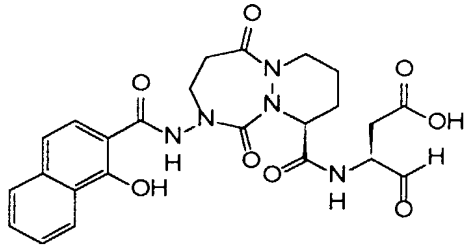
1044  ;

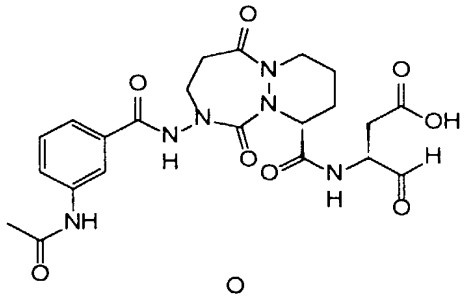
1045  ;

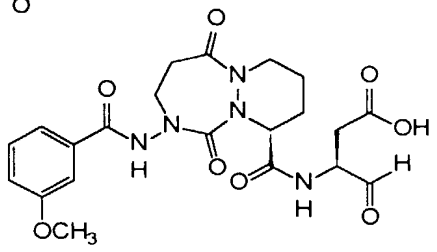
1046  ;

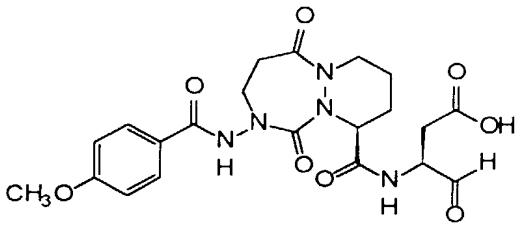
1047  ;

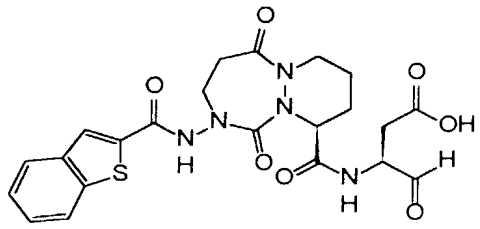
1048  ;

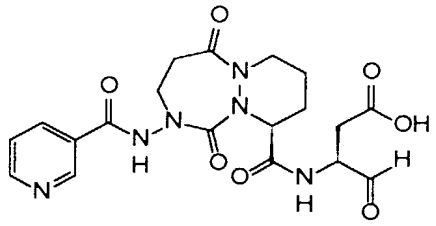
1049  ;

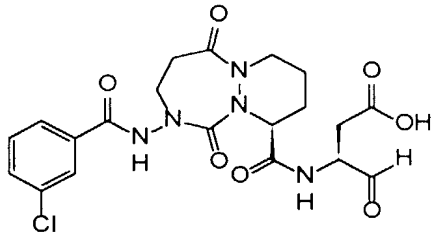
1050  ;

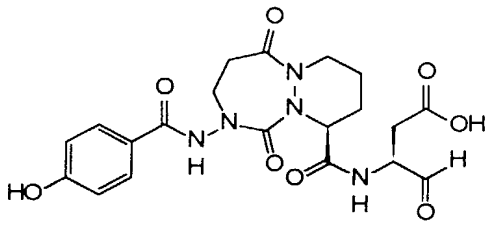
1051  ;

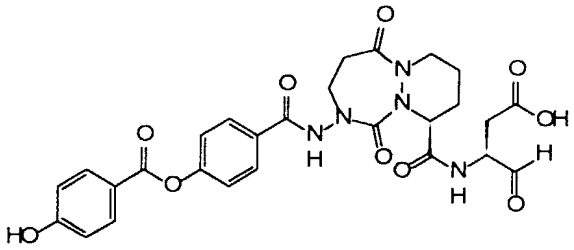
1052  ;

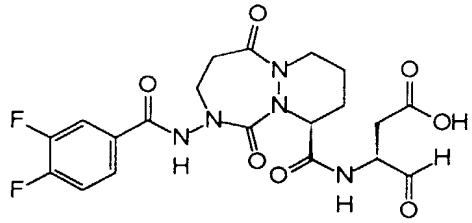
1053  ;

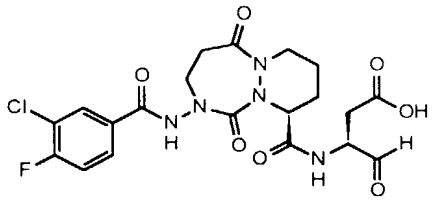
1054  ;

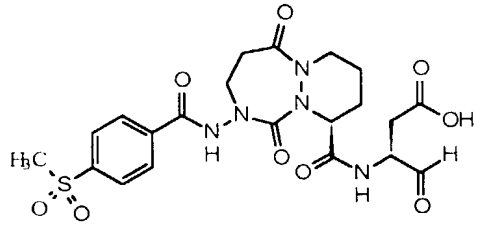
1055  ;

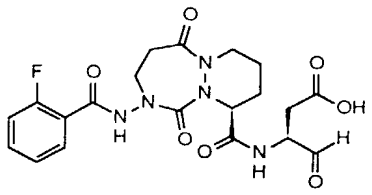
1056  ;

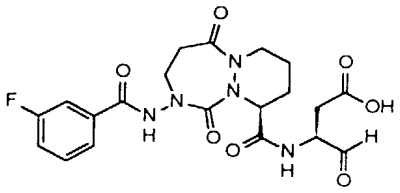
1057  ;

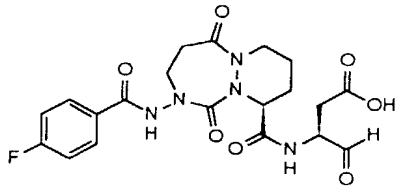
1058  ;

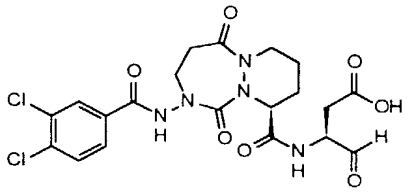
1059  ;

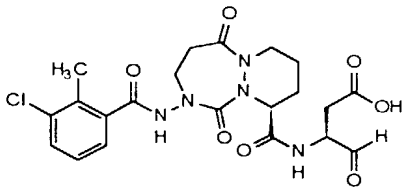
1060  ;

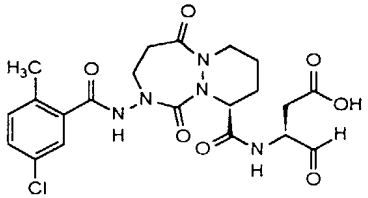
1061  ;

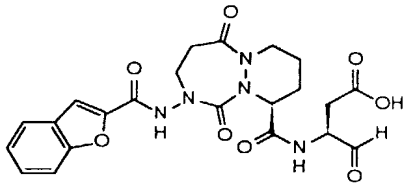
1062  ;

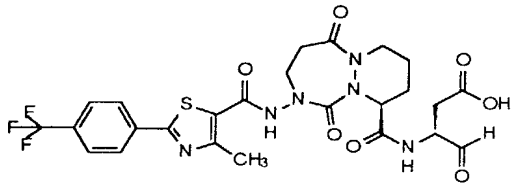
1063  ;

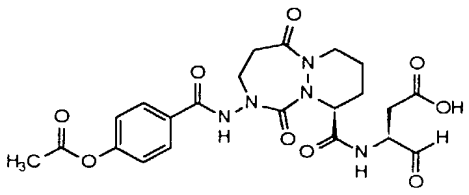
1064  ;

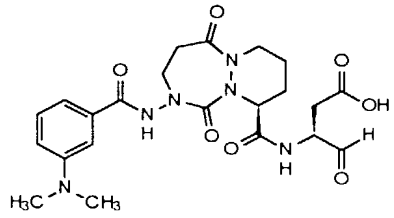
1065  ;

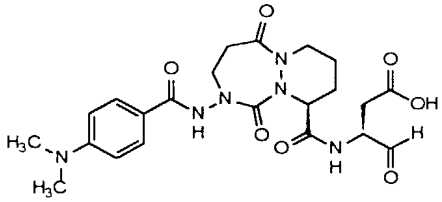
1066  ;

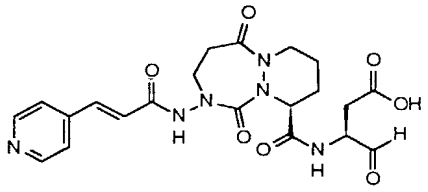
1067  ;

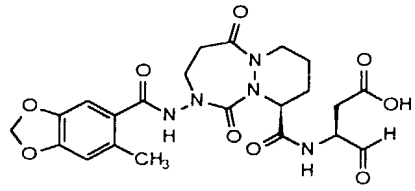
1068  ;

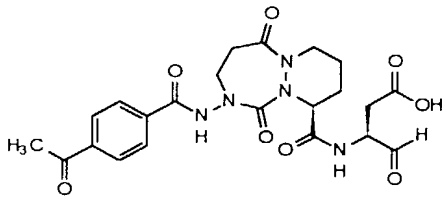
1069  ;

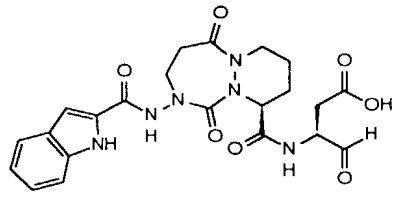
1070  ;

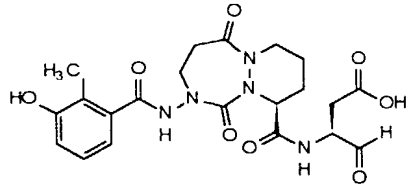
1071  ;

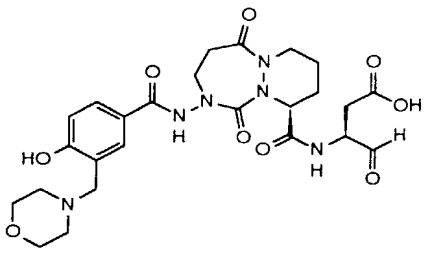
1072  ;

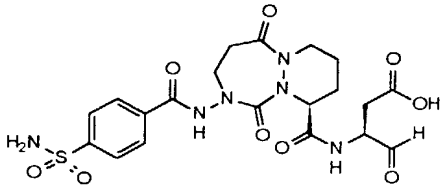
1073  ;

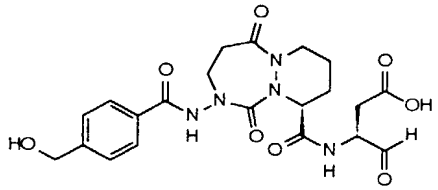
1074  ;

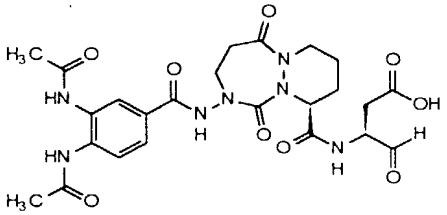
1075  ;

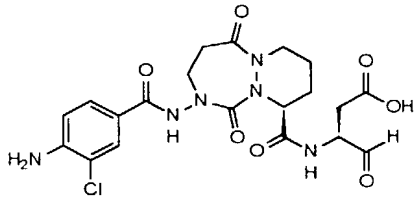
1076  ;

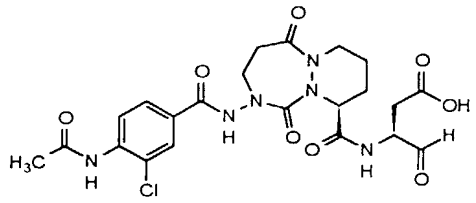
1077  ;

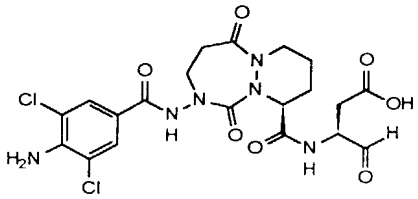
1078  ;

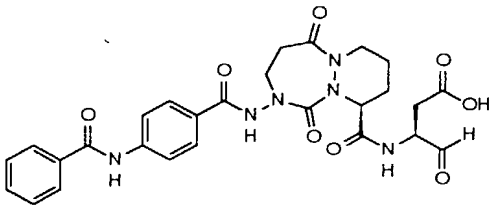
1079  ;

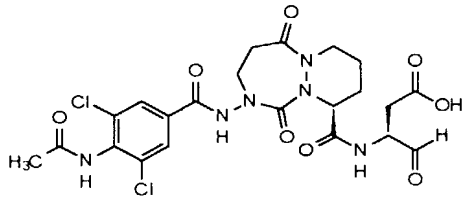
1080  ;

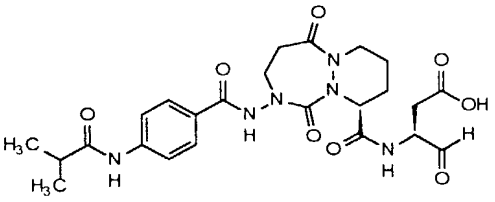
1081  ;

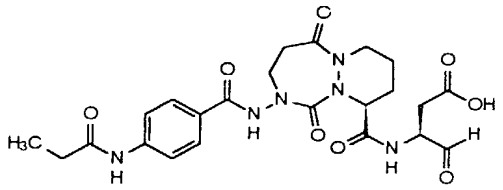
1081s  ;

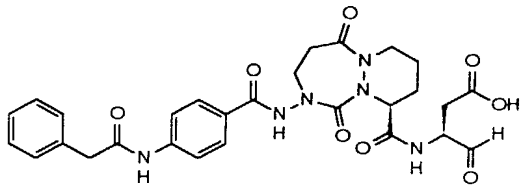
1082  ;

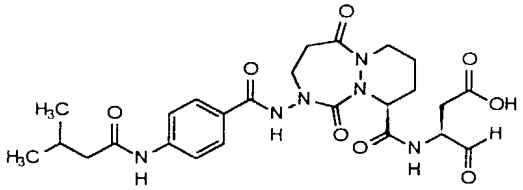
1083  ;

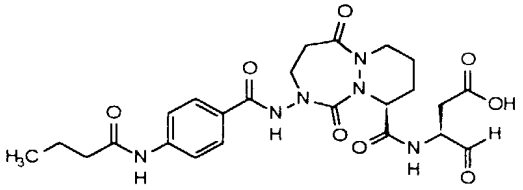
1082s  ;

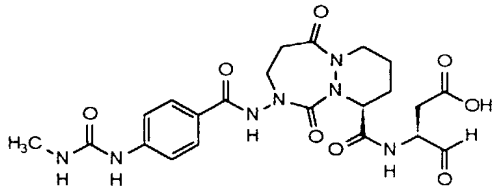
1084  ;

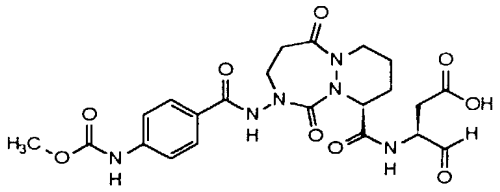
1085  ;

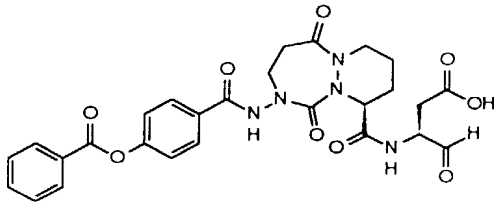
1086  ;

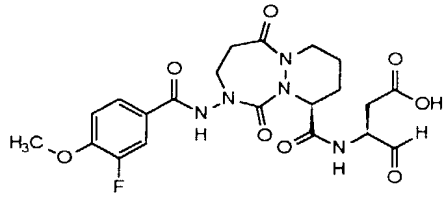
1087  ;

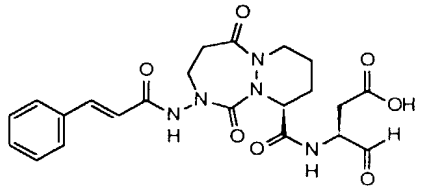
1088  ;

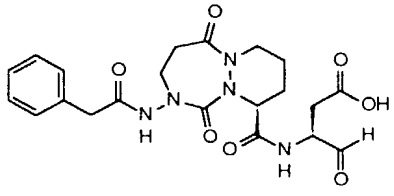
1089  ;

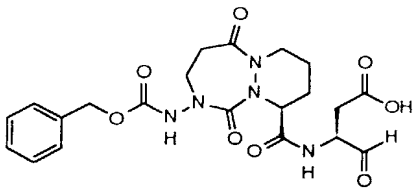
1090  ;

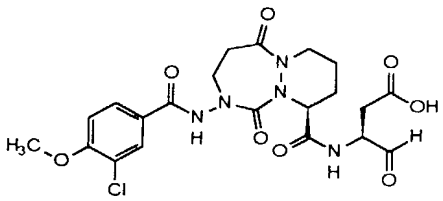
1091  ;

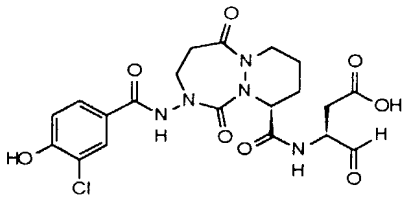
1093  ;

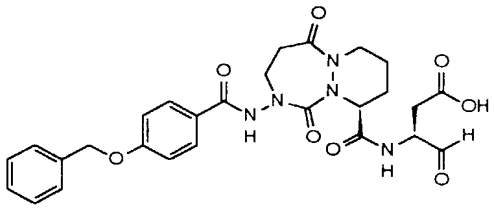
1094  ;

1095  ;

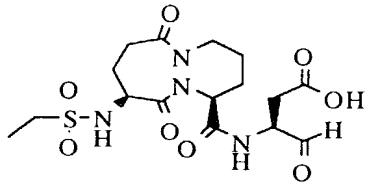
1096  ;

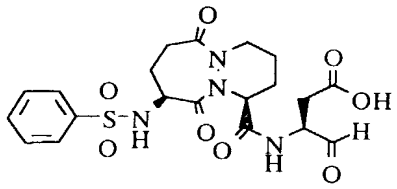
1097  ;

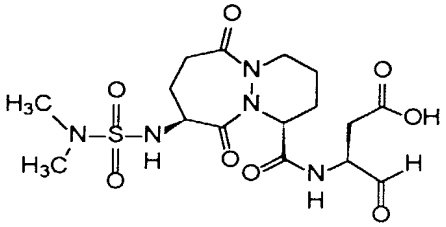
1098  ; and

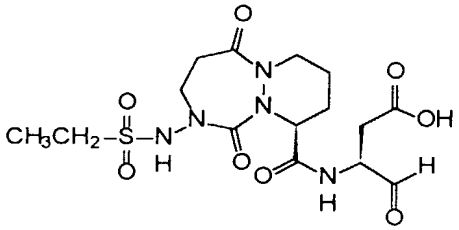
1099  .

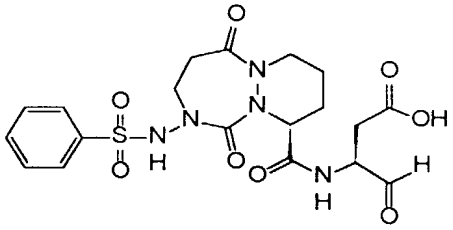
41. The compound according to claim 33 selected from the group consisting of:

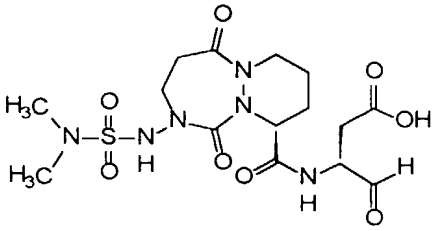
421  ;

427  ;

428  ;

1021  ;

1027  ; and

1028  .

42. A pharmaceutical composition comprising

an ICE inhibitor according to any one of claims 1-41 and 57-135 in an amount effective for treating or preventing an IL-1-mediated disease and a pharmaceutically acceptable carrier.

43. A pharmaceutical composition comprising an ICE inhibitor according to any one of claims 1-41 and 57-135 in an amount effective for treating or preventing an apoptosis-mediated disease and a pharmaceutically acceptable carrier.

44. The pharmaceutical composition according to claim 42, wherein the IL-1-mediated disease is an inflammatory disease selected from the group consisting of osteoarthritis, acute pancreatitis, chronic pancreatitis, asthma, and adult respiratory distress syndrome.

45. The pharmaceutical composition according to claim 44, wherein the inflammatory disease is osteoarthritis or acute pancreatitis.

46. The pharmaceutical composition according to claim 42, wherein the IL-1-mediated disease is an autoimmune disease selected from the group consisting of glomeralonephritis, rheumatoid arthritis, systemic lupus erythematosus, scleroderma, chronic thyroiditis, Grave's disease, autoimmune gastritis, insulin-dependent diabetes mellitus (Type I), autoimmune hemolytic anemia, autoimmune neutropenia, thrombocytopenia, chronic active hepatitis, myasthenia gravis, inflammatory bowel disease, Crohn's disease, psoriasis, and graft vs host disease.

47. The pharmaceutical composition according to claim 46, wherein the autoimmune disease is rheumatoid arthritis, inflammatory bowel disease, or Crohn's disease, or psoriasis.

48. The pharmaceutical composition according to claim 42, wherein the IL-1-mediated disease is a destructive bone disorder selected from the group consisting of osteoporosis or multiple myeloma-related bone disorder.

49. The pharmaceutical composition according to claim 42, wherein the IL-1-mediated disease is a proliferative disorder selected from the group consisting of acute myelogenous leukemia, chronic myelogenous leukemia, metastatic melanoma, Kaposi's sarcoma, and multiple myeloma.

50. The pharmaceutical composition according to claim 42, wherein the IL-1-mediated disease is an infectious disease, selected from the group consisting of sepsis, septic shock, and Shigellosis.

51. The pharmaceutical composition according to claim 42, wherein the IL-1-mediated disease is a degenerative or necrotic disease, selected from the group consisting of Alzheimer's disease, Parkinson's disease, cerebral ischemia, and myocardial ischemia.

52. The pharmaceutical composition according to claim 51, wherein the degenerative disease is Alzheimer's disease.

53. The pharmaceutical composition according

to claim 43, wherein the apoptosis-mediated disease is a degenerative disease, selected from the group consisting of Alzheimer's disease, Parkinson's disease, cerebral ischemia, myocardial ischemia, spinal muscular atrophy, multiple sclerosis, AIDS-related encephalitis, HIV-related encephalitis, aging, alopecia, and neurological damage due to stroke.

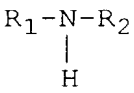
54. A pharmaceutical composition for inhibiting an ICE-mediated function comprising an ICE inhibitor according to any one of claims 1-41 and 57-135 and a pharmaceutically acceptable carrier.

55. A method for treating or preventing a disease selected from the group consisting of an IL-1 mediated disease, an apoptosis mediated disease, an inflammatory disease, an autoimmune disease, a destructive bone disorder, a proliferative disorder, an infectious disease, a degenerative disease, a necrotic disease, osteoarthritis, pancreatitis, asthma, adult respiratory distress syndrome, glomeralonephritis, rheumatoid arthritis, systemic lupus erythematosus, scleroderma, chronic thyroiditis, Grave's disease, autoimmune gastritis, insulin-dependent diabetes mellitus (Type I), autoimmune hemolytic anemia, autoimmune neutropenia, thrombocytopenia, chronic active hepatitis, myasthenia gravis, inflammatory bowel disease, Crohn's disease, psoriasis, graft vs host disease, osteoporosis, multiple myeloma-related bone disorder, acute myelogenous leukemia, chronic myelogenous leukemia, metastatic melanoma, Kaposi's sarcoma, multiple myeloma, sepsis, septic shock, Shigellosis, Alzheimer's disease, Parkinson's disease, cerebral ischemia, myocardial ischemia, spinal muscular

atrophy, multiple sclerosis, AIDS-related encephalitis, HIV-related encephalitis, aging, alopecia, and neurological damage due to stroke in a patient comprising the step of administering to said patient a pharmaceutical composition according to any one of claims 42 to 54.

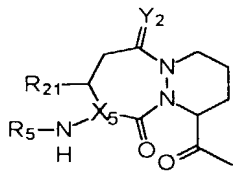
56. The method according to claim 55, wherein the disease is selected from the group consisting of osteoarthritis, acute pancreatitis, rheumatoid arthritis, inflammatory bowel disease, Crohn's disease, psoriasis, and Alzeheimer's disease.

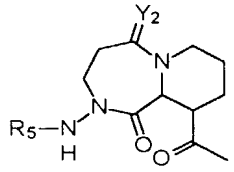
57. A compound represented by the formula:

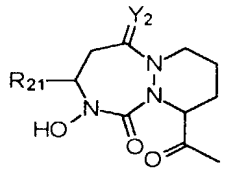
(III) 

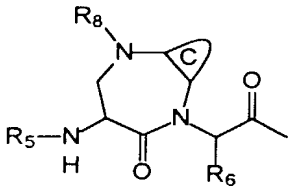
wherein:

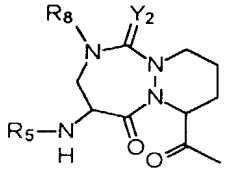
R_1 is selected from the group consisting of the following formulae:

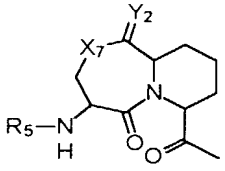
(e10)  ;

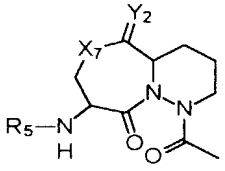
(e11)  ;

(e12)  ;

(w2)  ;

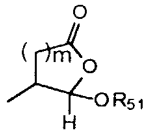
(y1)  ;

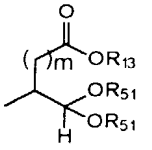
(y2)  ;

(z)  ; and

ring C is chosen from the group consisting of benzo, pyrido, thieno, pyrrolo, furano, thiazolo, isothiazolo, oxazolo, isoxazolo, pyrimido, imidazolo, cyclopentyl, and cyclohexyl;

R_2 is:

(a)  , or

(b)  ;

m is 1 or 2;

each R_5 is independently selected from the group consisting of:

$-C(O)-R_{10}$,
$-C(O)O-R_9$,
$-C(O)-N(R_{10})(R_{10})$
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-O-R_9$,
$-C(O)C(O)-R_{10}$,
$-R_9$,
$-H$,
$-C(O)C(O)-OR_{10}$, and
$-C(O)C(O)-N(R_9)(R_{10})$;

X_5 is CH or N;

Y_2 is H_2 or O;

X_7 is $-N(R_8)-$ or $-O-$;

R_6 is selected from the group consisting of -H and $-CH_3$;

R_8 is selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,

$-C(O)-N(H)-R_{10}$,

$-S(O)_2-R_9$,

$-S(O)_2-NH-R_{10}$,

$-C(O)-CH_2-OR_{10}$,

$-C(O)C(O)-R_{10}$;

$-C(O)-CH_2N(R_{10})(R_{10})$,

$-C(O)-CH_2C(O)-O-R_9$,

$-C(O)-CH_2C(O)-R_9$,

-H, and

$-C(O)-C(O)-OR_{10}$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

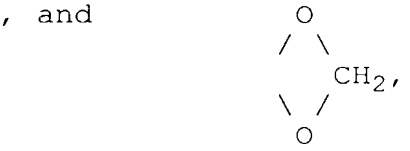
R_{13} is selected from the group consisting of H, Ar_3, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

each R_{51} is independently selected from the group consisting of R_9, $-C(O)-R_9$, $-C(O)-N(H)-R_9$, or each R_{51} taken together forms a saturated 4-8 member carbocyclic ring or heterocyclic ring containing -O-, -S-, or -NH-;

each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-N(R_9)(R_{10})$, $-R_9$, $-C(O)-R_{10}$, and



provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

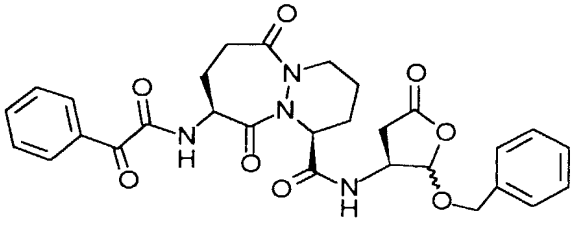
58. The compound according to claim 57, wherein R_1 is (w2).

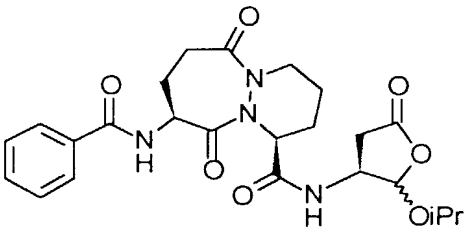
59. The compound according to claim 57,

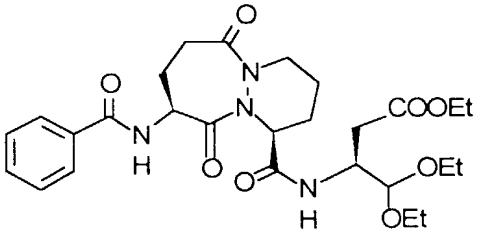
wherein R_1 is (e10) and X_5 is CH.

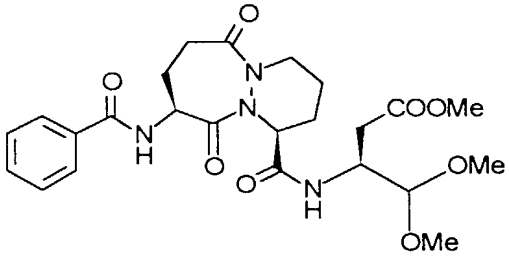
60. The compound according to claim 57, wherein R_1 is (e10) and X_5 is N.

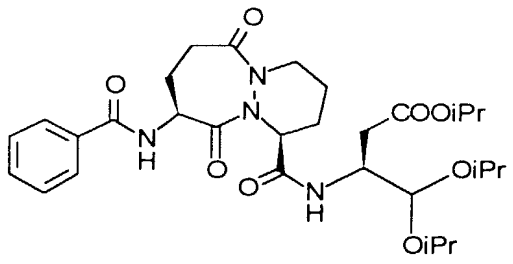
61. The compound according to claim 57, selected from the group consisting of:

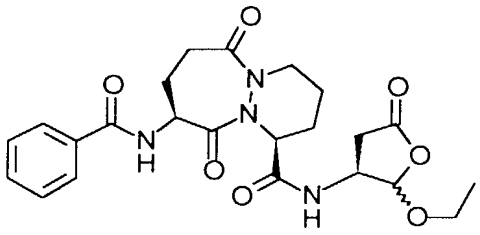
2001  ;

2100a  ;

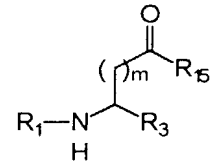
2100b  ;

2100c  ;

2100d  ; and

2100e  .

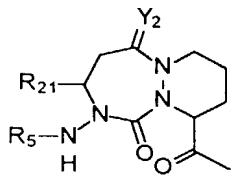
62. A compound represented by the formula:

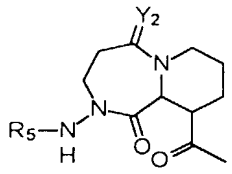
(IV) 

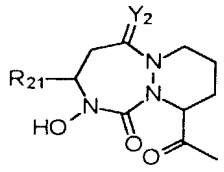
wherein:

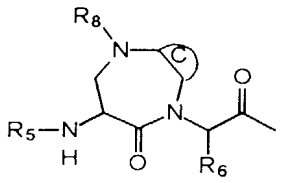
m is 1 or 2;

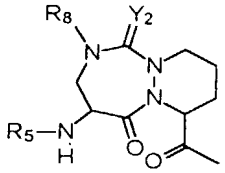
R_1 is selected from the group consisting of the following formulae:

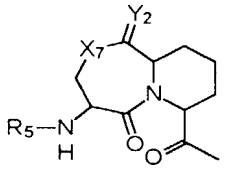
(e10-A)  ;

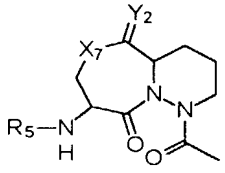
(e11)  ;

(e12)  ;

(w2)  ;

(y1)  ;

(y2)  ; and

(z)  ;

ring C is chosen from the group consisting of benzo, pyrido, thieno, pyrrolo, furano, thiazolo, isothiazolo, oxazolo, isoxazolo, pyrimido, imidazolo,

cyclopentyl, and cyclohexyl;

R_3 is selected from the group consisting of:

-CN,

-C(O)-H,

$-C(O)-CH_2-T_1-R_{11}$,

$-C(O)-CH_2-F$,

$-C=N-O-R_9$, and

$-CO-Ar_2$;

each R_5 is independently selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,

$-C(O)-N(R_{10})(R_{10})$

$-S(O)_2-R_9$,

$-S(O)_2-NH-R_{10}$,

$-C(O)-CH_2-O-R_9$,

$-C(O)C(O)-R_{10}$,

$-R_9$,

-H,

$-C(O)C(O)-OR_{10}$, and

$-C(O)C(O)-N(R_9)(R_{10})$;

Y_2 is H_2 or O;

X_7 is $-N(R_8)-$ or -O-;

each T_1 is independently selected from the group consisting of -O-, -S-, -S(O)-, and $-S(O)_2-$;

R_6 is selected from the group consisting of -H and $-CH_3$;

R_8 is selected from the group consisting of:

$-C(O)-R_{10}$,
$-C(O)O-R_9$,
$-C(O)-NH-R_{10}$,
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-OR_{10}$,
$-C(O)C(O)-R_{10}$,
$-C(O)-CH_2-N(R_{10})(R_{10})$,
$-C(O)-CH_2C(O)-O-R_9$,
$-C(O)-CH_2C(O)-R_9$,
-H, and
$-C(O)-C(O)-OR_{10}$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{11} is independently selected from the group consisting of:

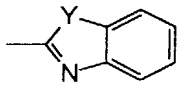
$-Ar_4$,
$-(CH_2)_{1-3}-Ar_4$,
-H, and
$-C(O)-Ar_4$;

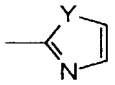
R_{15} is selected from the group consisting of -OH, $-OAr_3$, $-N(H)-OH$, and $-OC_{1-6}$, wherein C_{1-6} is a straight or branched alkyl group optionally substituted with

$-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

Ar_2 is independently selected from the following group, in which any ring may optionally be singly or multiply substituted by $-Q_1$ or phenyl, optionally substituted by Q_1:

(hh)  , and

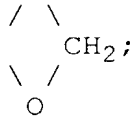
(ii)  ,

wherein each Y is independently selected from the group consisting of O and S;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 is a cyclic group independently selected

from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings, and a heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

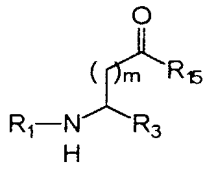
each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-N(R_9)(R_{10})$, $-R_9$, $-C(O)-R_{10}$, and  ;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

63. The compound according to claim 62, wherein R_1 is (w2).

64. The compound according to claim 62, wherein R_1 is (e10-A).

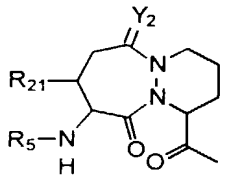
65. A compound represented by the formula:

(V) 

wherein:

m is 1 or 2;

R_1 is:

(e10-B)  ;

R_3 is selected from the group consisting of:

-CN,
-C(O)-H,
$-C(O)-CH_2-T_1-R_{11}$,
$-C(O)-CH_2-F$,
$-C=N-O-R_9$, and
$-CO-Ar_2$;

each R_5 is independently selected from the group consisting of:

$-C(O)-R_{10}$,
$-C(O)O-R_9$,
$-C(O)-N(R_{10})(R_{10})$
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-O-R_9$,
$-C(O)C(O)-R_{10}$,
$-R_9$,
-H,

$-C(O)C(O)-OR_{10}$, and
$-C(O)C(O)-N(R_9)(R_{10})$;

Y_2 is H_2 or O;

each T_1 is independently selected from the group consisting of -O-, -S-, -S(O)-, and $-S(O)_2-$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

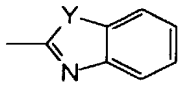
each R_{11} is independently selected from the group consisting of:
$-Ar_4$,
$-(CH_2)_{1-3}-Ar_4$,
-H, and
$-C(O)-Ar_4$;

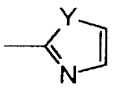
R_{15} is selected from the group consisting of -OH, $-OAr_3$, -N(H)-OH, and $-OC_{1-6}$, wherein C_{1-6} is a straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

R_{21} is $-CH_3$;

Ar_2 is independently selected from the following

group, in which any ring may optionally be singly or multiply substituted by $-Q_1$ or phenyl, optionally substituted by Q_1:

(hh)  , and

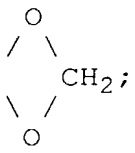
(ii)  ,

wherein each Y is independently selected from the group consisting of O and S;

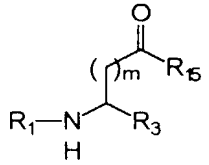
each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings, and a heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally

containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-N(R_9)(R_{10})$, $-R_9$, $-C(O)-R_{10}$, and  ; provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

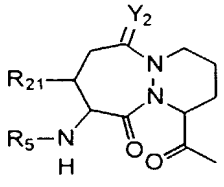
66. A compound represented by the formula:

(V) 

wherein:

m is 1 or 2;

R_1 is:

(e10-B)  ;

R_3 is selected from the group consisting of:

-CN,

$-C(O)-H$,
$-C(O)-CH_2-T_1-R_{11}$,
$-C(O)-CH_2-F$,
$-C=N-O-R_9$, and
$-CO-Ar_2$;

each R_5 is $-C(O)C(O)-OR_{10}$;

Y_2 is H_2 or O;

each T_1 is independently selected from the group consisting of -O-, -S-, -S(O)-, and $-S(O)_2-$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

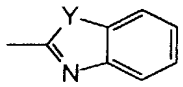
each R_{11} is independently selected from the group consisting of:
$-Ar_4$,
$-(CH_2)_{1-3}-Ar_4$,
-H, and
$-C(O)-Ar_4$;

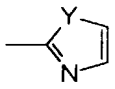
R_{15} is selected from the group consisting of -OH, $-OAr_3$, -N(H)-OH, and $-OC_{1-6}$, wherein C_{1-6} is a straight or branched alkyl group optionally substituted with

$-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

Ar_2 is independently selected from the following group, in which any ring may optionally be singly or multiply substituted by $-Q_1$ or phenyl, optionally substituted by Q_1:

(hh)  , and

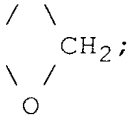
(ii)  ,

wherein each Y is independently selected from the group consisting of O and S;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

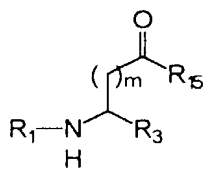
each Ar_4 is a cyclic group independently selected

from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings, and a heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-N(R_9)(R_{10})$, $-R_9$, $-C(O)-R_{10}$, and  ; provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

67. The compound according to claim 66, wherein R_{21} is $-CH_3$.

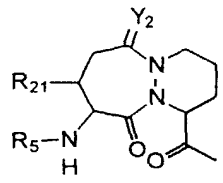
68. A compound represented by the formula:

(V) 

wherein:

m is 1 or 2;

R_1 is:

(e10-B)  ;

R_3 is selected from the group consisting of:

-CN,

-C(O)-H,

$-C(O)-CH_2-T_1-R_{11}$,

$-C(O)-CH_2-F$,

$-C=N-O-R_9$, and

$-CO-Ar_2$;

each R_5 is independently selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,

$-C(O)-N(R_{10})(R_{10})$

$-S(O)_2-R_9$,

$-S(O)_2-NH-R_{10}$,

$-C(O)-CH_2-O-R_9$,

$-C(O)C(O)-R_{10}$,

$-R_9$,

-H,

$-C(O)C(O)-OR_{10}$, and

$-C(O)C(O)-N(R_9)(R_{10})$;

Y_2 is H_2 or O;

each T_1 is independently selected from the group consisting of -O-, -S-, -S(O)-, and $-S(O)_2-$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{11} is independently selected from the group consisting of:

$-Ar_4$,

$-(CH_2)_{1-3}-Ar_4$,

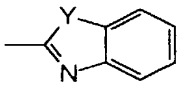
-H, and

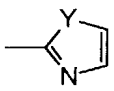
$-C(O)-Ar_4$;

R_{15} is selected from the group consisting of -OH, $-OAr_3$, -N(H)-OH, and $-OC_{1-6}$, wherein C_{1-6} is a straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

Ar_2 is independently selected from the following group, in which any ring may optionally be singly or multiply substituted by $-Q_1$ or phenyl, optionally substituted by Q_1:

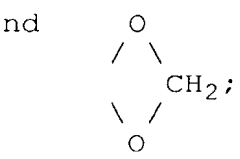
(hh)  , and

(ii)  ,

wherein each Y is independently selected from the group consisting of O and S;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings, and a heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-N(R_9)(R_{10})$, $-R_9$, $-C(O)-R_{10}$, and  ;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$;

provided that when:

m is 1;
R_{15} is -OH;
R_{21} is -H; and

Y_2 is O and R_3 is $-C(O)-H$, then R_5 cannot be:

$-C(O)-R_{10}$, wherein R_{10} is $-Ar_3$ and the Ar_3 cyclic group is phenyl, unsubstituted by $-Q_1$, 4-(carboxymethoxy)phenyl, 2-fluorophenyl, 2-pyridyl, N-(4-methylpiperazino)methylphenyl, or

$-C(O)-OR_9$, wherein R_9 is $-CH_2-Ar_3$, and the Ar_3 cyclic group is phenyl, unsubstituted by $-Q_1$; and when

Y_2 is O, R_3 is $-C(O)-CH_2-T_1-R_{11}$, T_1 is O, and R_{11} is Ar_4, wherein the Ar_4 cyclic group is 5-(1-(4-chlorophenyl)-3-trifluoromethyl)pyrazolyl), then R_5 cannot be:

-H;

$-C(O)-R_{10}$, wherein R_{10} is $-Ar_3$ and the Ar_3 cyclic group is 4-(dimethylaminomethyl)phenyl, phenyl, 4-(carboxymethylthio)phenyl,4-(carboxyethylthio)phenyl,

4-(carboxyethyl)phenyl, 4-(carboxypropyl)phenyl, 2-fluorophenyl, 2-pyridyl, N-(4-methylpiperazino)methylphenyl, or

$-C(O)-OR_9$, wherein R_9 is isobutyl or $-CH_2-Ar_3$ and the Ar_3 cyclic group is phenyl;

and when R_{11} is Ar_4, wherein the Ar_4 cyclic group is 5-(1-phenyl-3-trifluoromethyl)pyrazolyl or 5-(1-(4-chloro-2-pyridinyl)-3-trifluoromethyl)pyrazolyl, then R_5 cannot be:

$-C(O)-OR_9$, wherein R_9 is $-CH_2-Ar_3$, and the Ar_3 cyclic group is phenyl;

and when R_{11} is Ar_4, wherein the Ar_4 cyclic group is 5-(1-(2-pyridyl)-3-trifluoromethyl)pyrazolyl), then R_5 cannot be:

$-C(O)-R_{10}$, wherein R_{10} is $-Ar_3$ and the Ar_3 cyclic group is 4-(dimethylaminomethyl)phenyl, or

$-C(O)-OR_9$, wherein R_9 is $-CH_2-Ar_3$, and the Ar_3 cyclic group is phenyl, unsubstituted by $-Q_1$; and when

Y_2 is O, R_3 is $-C(O)-CH_2-T_1-R_{11}$, T_1 is O, and R_{11} is $-C(O)-Ar_4$, wherein the Ar_4 cyclic group is 2,5-dichlorophenyl, then R_5 cannot be:

$-C(O)-R_{10}$, wherein R_{10} is $-Ar_3$ and the Ar_3 cyclic group is 4-(dimethylaminomethyl)phenyl, 4-(N-morpholinomethyl)phenyl, 4-(N-methylpiperazino)methyl)phenyl, 4-(N-(2-methyl)imidazolylmethyl)phenyl, 5-benzimidazolyl, 5-benztriazolyl, N-carboethoxy-5-benztriazolyl, N-carboethoxy-5-benzimidazolyl, or

$-C(O)-OR_9$, wherein R_9 is $-CH_2-Ar_3$, and the Ar_3 cyclic group is phenyl, unsubstituted by $-Q_1$,; and when

Y_2 is H_2, R_3 is $-C(O)-CH_2-T_1-R_{11}$, T_1 is O, and R_{11}

is $-C(O)-Ar_4$, wherein the Ar_4 cyclic group is 2,5-dichlorophenyl, then R_5 cannot be:

$-C(O)-OR_9$, wherein R_9 is $-CH_2-Ar_3$ and the Ar_3 cyclic group is phenyl.

69. The compound according to claim 68, wherein R_{21} is $-CH_3$.

70. The compound according to claim 68, wherein R_5 is $-C(O)-C(O)-OR_{10}$.

71. The compound according to claim 68, wherein R_5 is $-C(O)-C(O)-OR_{10}$ and R_{21} is $-CH_3$.

72. The compound according to any one of claims 66, 67, 70 and 71, wherein R_3 is $-C(O)-H$.

73. The compound according to any one of claims 65, 68 and 69, wherein R_3 is $-C(O)-H$.

74. The compound according to claim 68, wherein:

R_3 is $-C(O)-H$, and

R_5 is $-C(O)-R_{10}$, wherein:

R_{10} is Ar_3, wherein the Ar_3 cyclic group is phenyl optionally being singly or multiply substituted by:

$-F$,

$-Cl$,

$-N(H)-R_5$, wherein $-R_5$ is $-H$ or $-C(O)-R_{10}$, wherein R_{10} is a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein Ar_3 is

phenyl,

$-N(R_9)(R_{10})$, wherein R_9 and R_{10} are independently a $-C_{1-4}$ straight or branched alkyl group, or

$-O-R_5$, wherein R_5 is H or a $-C_{1-4}$ straight or branched alkyl group.

75. The compound according to claim 74, wherein Ar_3 is phenyl being optionally singly or multiply substituted at the 3- or 5-position by -Cl or at the 4-position by $-NH-R_5$, $-N(R_9)(R_{10})$, or $-O-R_5$.

76. The compound according to claim 68, wherein:

R_3 is $-C(O)-H$;

R_5 is $-C(O)-R_{10}$, wherein R_{10} is Ar_3 and the Ar_3 cyclic group is selected from the group consisting of is indolyl, benzimidazolyl, thienyl, and benzo[b]thiophenyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$.

77. The compound according to claim 68, wherein:

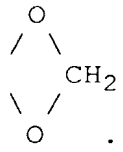
R_3 is $-C(O)-H$; and

R_5 is $-C(O)-R_{10}$, wherein R_{10} is Ar_3 and the Ar_3 cyclic group is selected from quinolyl and isoquinolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$.

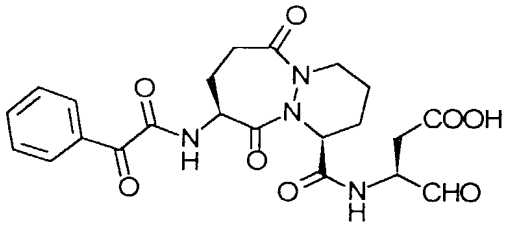
78. The compound according to claim 68, wherein:

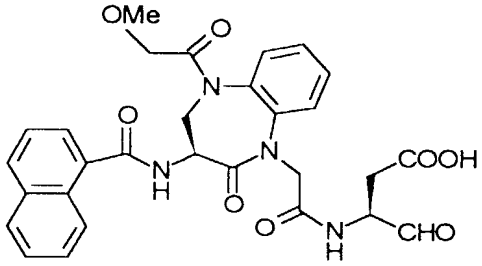
R_3 is -C(O)-H; and

R_5 is $-C(O)-R_{10}$, wherein R_{10} is Ar_3 and the Ar_3 cyclic group is phenyl, substituted by

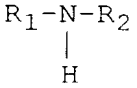


79. The compound according to claim 68, selected from the group consisting of:

2002  ; and

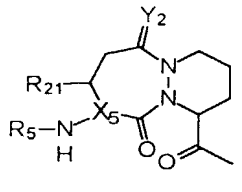
2201  .

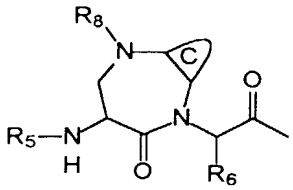
80. A compound represented by the formula:

(VI) 

wherein:

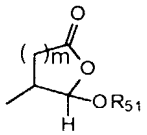
R_1 is:

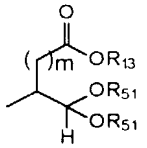
(e10)  , or

(w2)  ;

C is a ring chosen from the set consisting of benzo, pyrido, thieno, pyrrolo, furano, thiazolo, isothiazolo, oxazolo, isoxazolo, pyrimido, imidazolo, cyclopentyl, and cyclohexyl; the ring optionally being singly or multiply substituted by $-Q_1$;

R_2 is:

(a)  , or

(b)  ;

m is 1 or 2;

each R_5 is independently selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,

$-C(O)-N(R_{10})(R_{10})$

$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-O-R_9$,
$-C(O)C(O)-R_{10}$,
$-R_9$,
-H,
$-C(O)C(O)-OR_{10}$, and
$-C(O)C(O)-N(R_9)(R_{10})$;

X_5 is CH or N;

Y_2 is H_2 or O;

R_6 is selected from the group consisting of -H and $-CH_3$;

R_8 is selected from the group consisting of:
$-C(O)-R_{10}$,
$-C(O)O-R_9$,
$-C(O)-N(H)-R_{10}$,
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-OR_{10}$,
$-C(O)C(O)-R_{10}$;
$-C(O)-CH_2N(R_{10})(R_{10})$,
$-C(O)-CH_2C(O)-O-R_9$,
$-C(O)-CH_2C(O)-R_9$,
-H, and
$-C(O)-C(O)-OR_{10}$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

R_{13} is selected from the group consisting of H, Ar_3, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

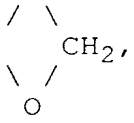
each R_{51} is independently selected from the group consisting of R_9, $-C(O)-R_9$, $-C(O)-N(H)-R_9$, or each R_{51} taken together forms a saturated 4-8 member carbocyclic ring or heterocyclic ring containing -O-, -S-, or -NH-;

each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group

consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-N(R_9)(R_{10})$, $-R_9$, $-C(O)-R_{10}$, and



provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

81. The compound according to claim 80, wherein:

m is 1;

C is a ring chosen from the set consisting of benzo, pyrido, or thieno the ring optionally being singly or multiply substituted by halogen, $-NH_2$, $-NH-R_5$, $-NH-R_9$, $-OR_{10}$, or $-R_9$, wherein R_9 is a straight or branched C_{1-4} alkyl group, and R_{10} is H or a straight or branched C_{1-4} alkyl group;

R_6 is H;

R_{13} is H or a C_{1-4} straight or branched alkyl group optionally substituted with $-Ar_3$, -OH, $-OR_9$, $-CO_2H$, wherein the R_9 is a C_{1-4} branched or straight chain alkyl group; wherein Ar_3 is morpholinyl or phenyl, wherein the phenyl is optionally substituted by $-Q_1$;

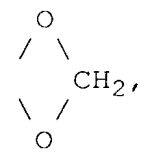
R_{21} is -H or $-CH_3$;

R_{51} is a C_{1-6} straight or branched alkyl group

optionally substituted with $-Ar_3$, wherein Ar_3 is phenyl, optionally substituted by $-Q_1$;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, pyrazolyl, thiazolyl, isoxazolyl, benzotriazolyl, benzimidazolyl, thienothienyl, imidazolyl, thiadiazolyl, benzo[b]thiophenyl, pyridyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, -Cl, -F, -Br, -OH, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and



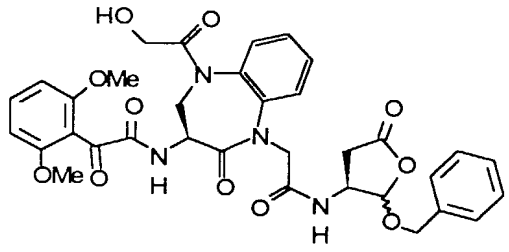
wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

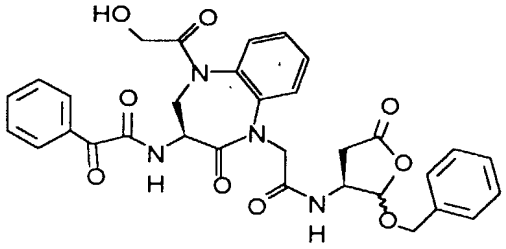
provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

82. The compound according to claim 81, wherein R_1 is (w2).

83. The compound according to claim 82,

selected from the group consisting of:

677  ; and

680  .

84. The compound according to claim 82, wherein R_8 is selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,

$-C(O)-CH_2-OR_{10}$, and

$-C(O)-CH_2C(O)-R_9$.

85. The compound according to claim 84, wherein R_8 is $-C(O)-CH_2-OR_{10}$ and R_{10} is -H or $-CH_3$.

86. The compound according to claim 81, wherein R_1 is (e10) and X_5 is CH.

87. The compound according to claim 81, wherein R_1 is (e10) and X_5 is N.

88. The compound according to any one of claims 80-87 wherein R_5 is $-C(O)-R_{10}$ or $-C(O)-C(O)-R_{10}$.

89. The compound according to claim 88, wherein R_{10} is Ar_3.

90. The compound according to claim 89, wherein:

R_5 is $-C(O)-R_{10}$ and R_{10} is Ar_3, wherein the Ar_3 cyclic group is phenyl optionally being singly or multiply substituted by:

$-R_9$, wherein R_9 is a C_{1-4} straight or branched alkyl group;

-F,

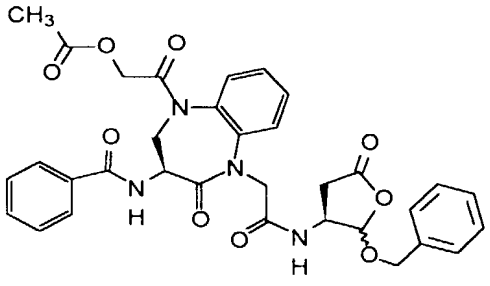
-Cl,

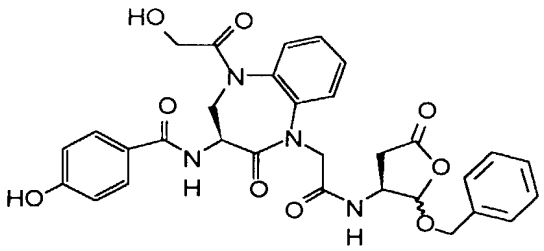
$-N(H)-R_5$, wherein $-R_5$ is -H or $-C(O)-R_{10}$, wherein R_{10} is a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein Ar_3 is phenyl,

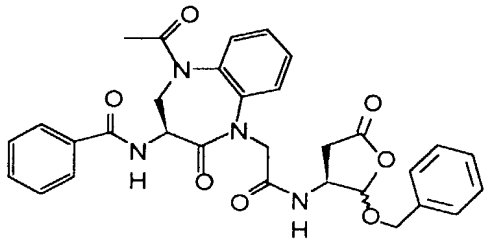
$-N(R_9)(R_{10})$, wherein R_9 and R_{10} are independently a $-C_{1-4}$ straight or branched alkyl group, or

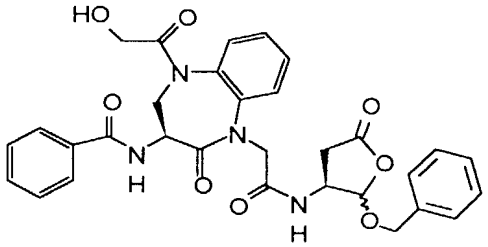
$-O-R_5$, wherein R_5 is H or a $-C_{1-4}$ straight or branched alkyl group.

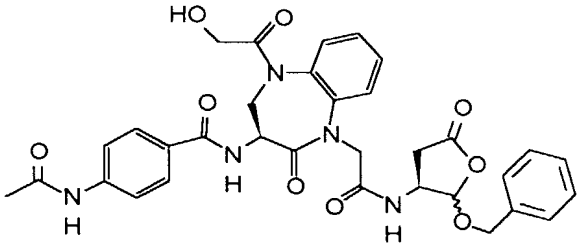
91. The compound according to claim 90, selected from the group consisting of:

682  ;

690b  ;

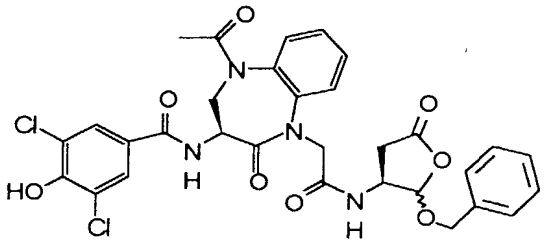
693  ;

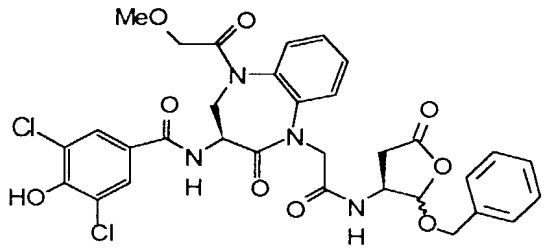
695a  ; and

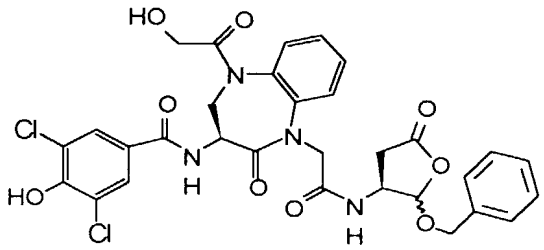
695b  .

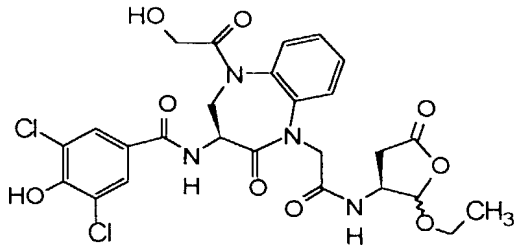
92. The compound according to claim 90, wherein Ar_3 is phenyl being singly or multiply substituted at the 3- or 5-position by -Cl or at the 4-position by $-NH-R_5$, $-N(R_9)(R_{10})$, or $-O-R_5$.

93. The compound according to claim 92, selected from the group consisting of:

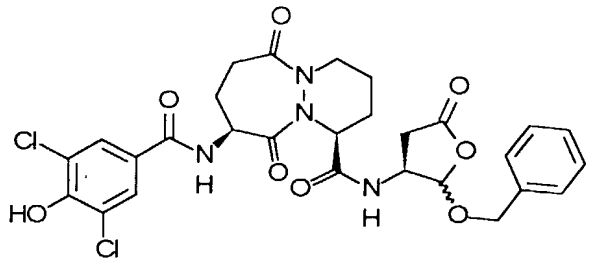
655  ;

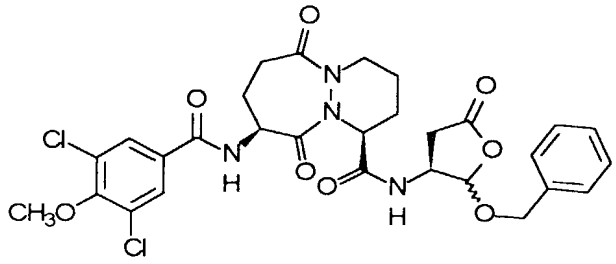
688a  ;

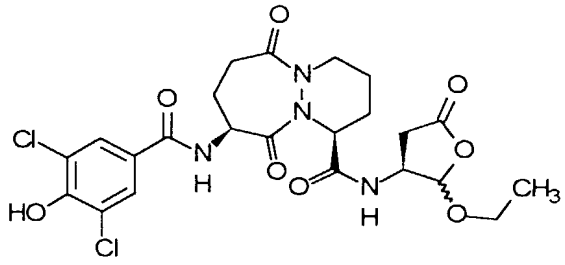
692a  ; and

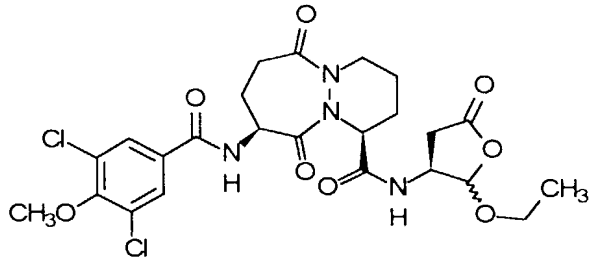
692b  .

94. The compound according to claim 92, selected from the group consisting of:

213k  ;

213m  ;

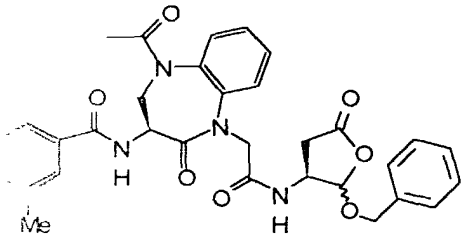
550k  ; and

550m  .

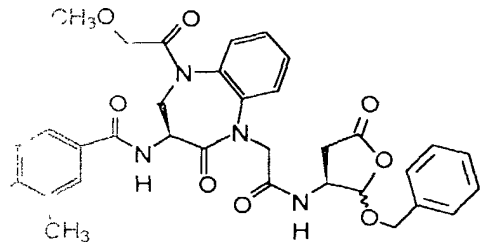
95. The compound according to claim 90, wherein Ar_3 is phenyl being singly or multiply substituted at the 3- or 5-position by $-R_9$, wherein R_9 is a C_{1-4} straight or branched alkyl group;

position by -O-R_5.

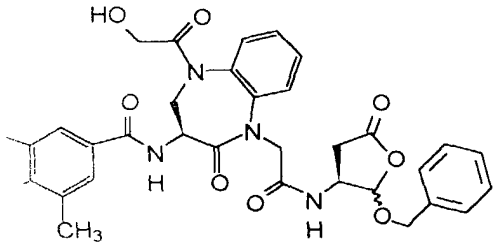
97. The compound according to claim 95, from the group consisting of:



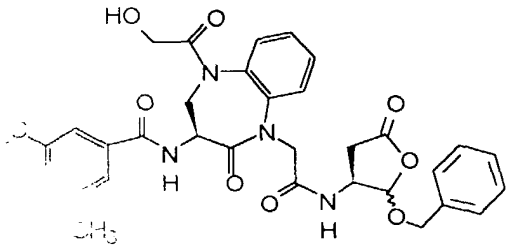
;



;

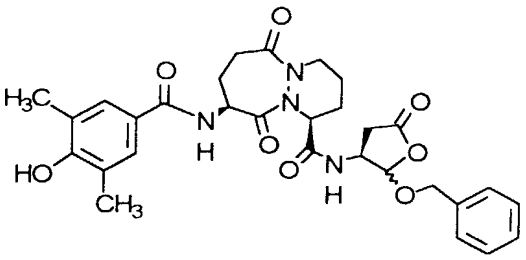


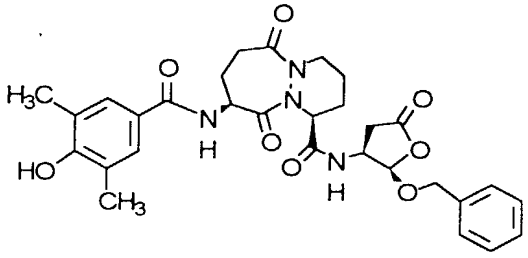
; and

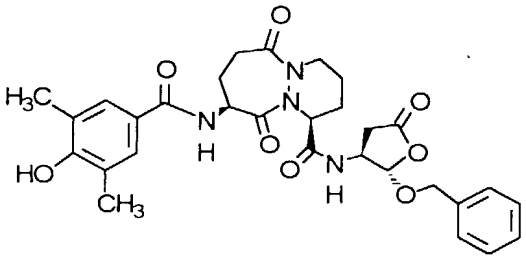


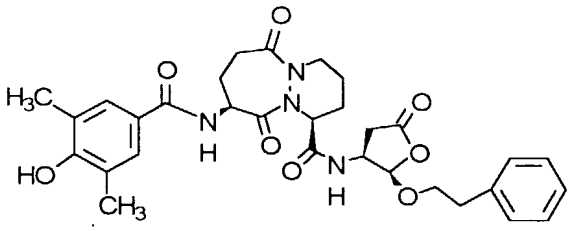
.

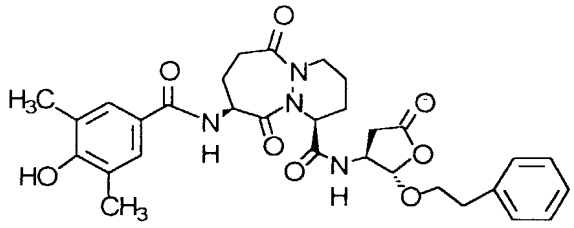
97. The compound according to claim 95, selected from the group consisting of:

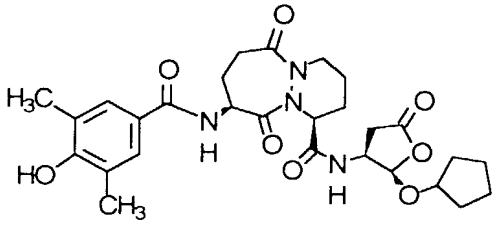
214w-1  ;

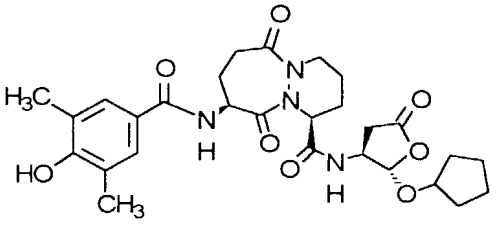
214w-2  ;

214w-3  ;

214w-4  ;

214w-5  ;

214w-6  ; and

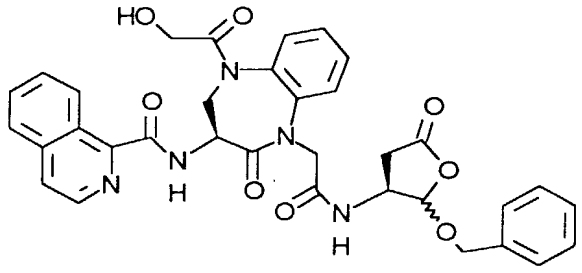
214w-7  .

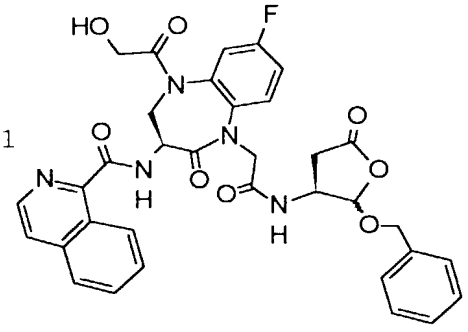
98. The compound according to claim 89, wherein:

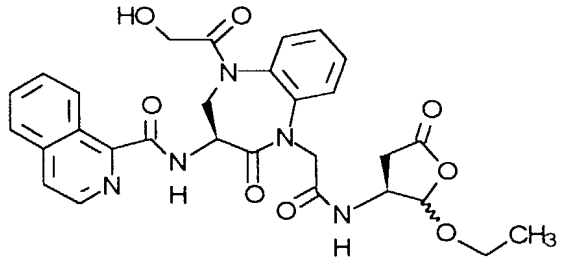
R_5 is $-C(O)-R_{10}$, wherein R_{10} is Ar_3 and the Ar_3 cyclic group is selected from the group consisting of is indolyl, benzimidazolyl, thienyl, quinolyl, isoquinolyl and benzo[b]thiophenyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$.

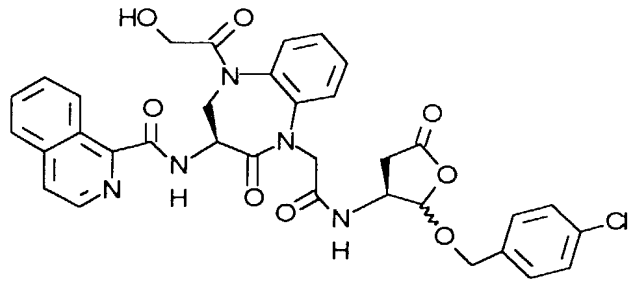
99. The compound according to claim 98, wherein the Ar_3 cyclic group is isoquinolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$.

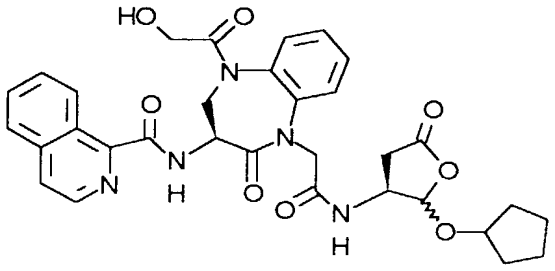
100. The compound according to claim 99 selected from the group consisting of:

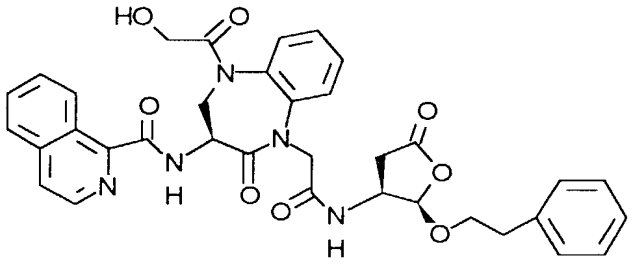
696a  ;

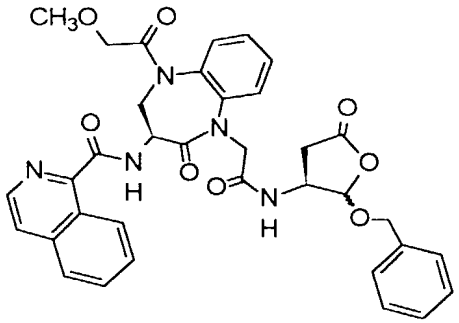
696a-1  ;

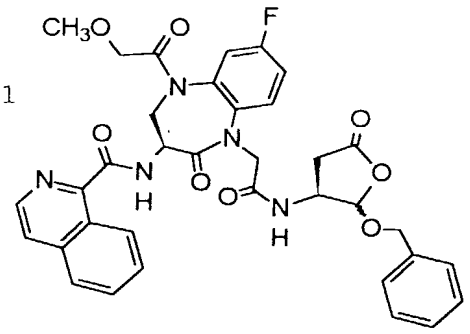
696b  ;

696c  ;

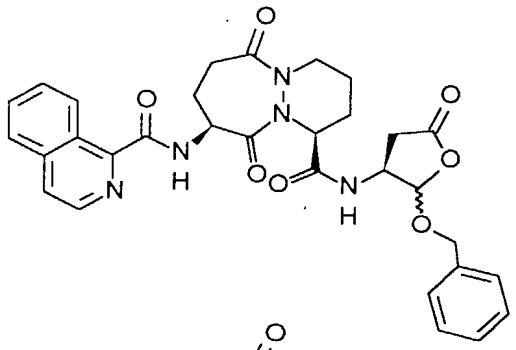
696d  ;

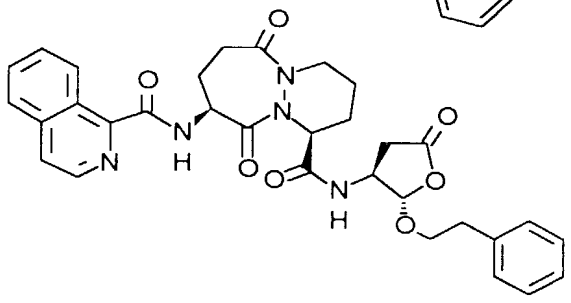
696e  ;

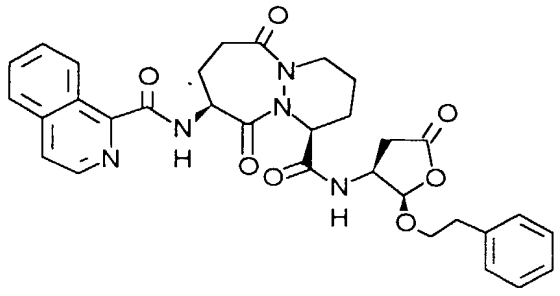
699a  ; and

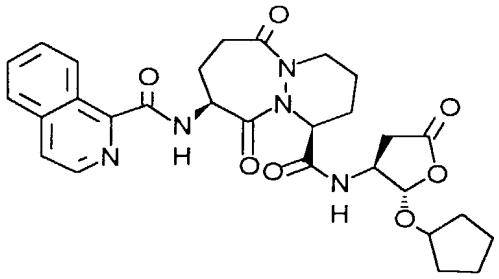
699a-1 

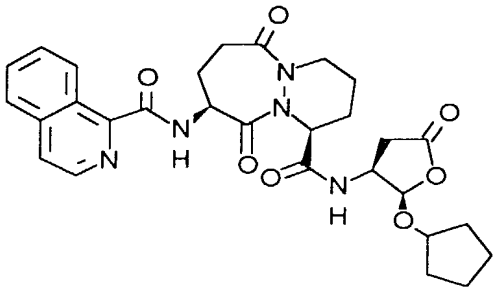
101. The compound according to claim 99, selected from the group consisting of:

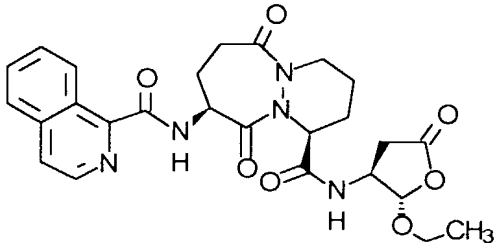
213y  ;

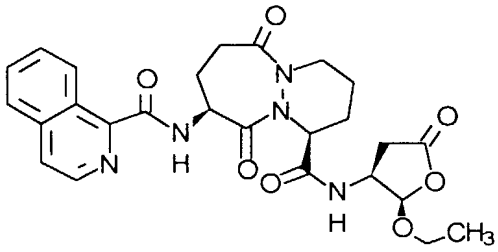
412a  ;

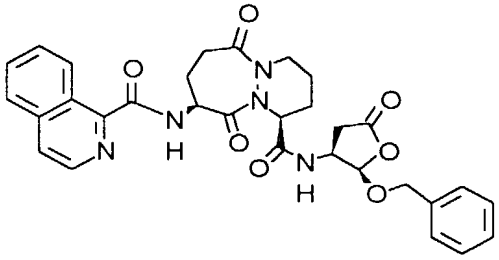
412b  ;

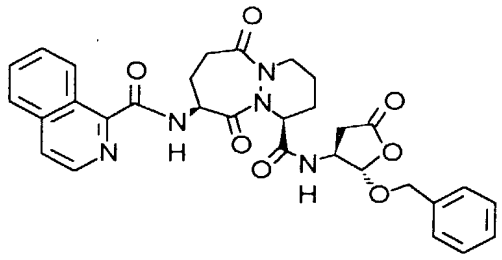
412c  ;

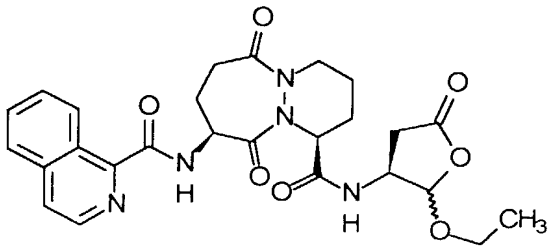
412d  ;

412e  ;

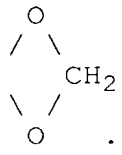
412f  ;

412g  ;

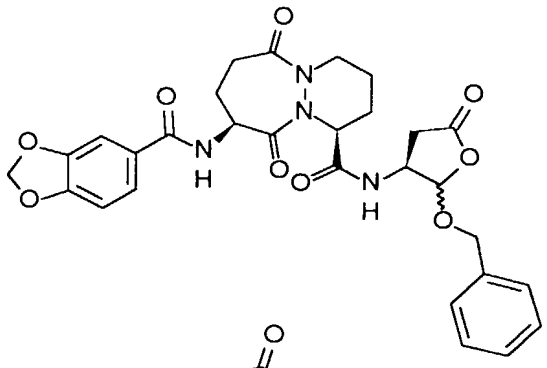
412h  ; and

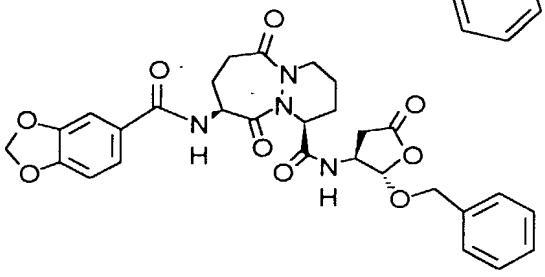
550q  .

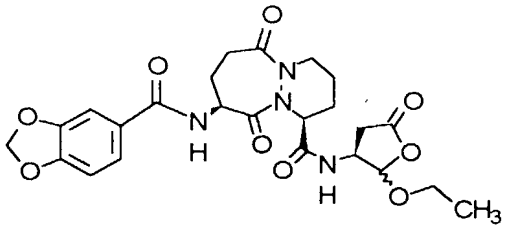
102. The compound according to claim 89, wherein R_5 is $-C(O)-R_{10}$, wherein R_{10} is Ar_3 and the Ar_3 cyclic group is phenyl, substituted by

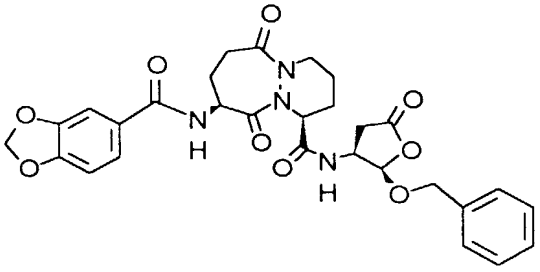
 .

103. The compound according to claim 102, selected from the group consisting of:

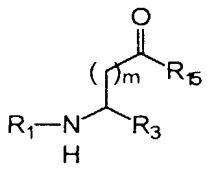
213n 

415a  ;

415b  ; and

415c  .

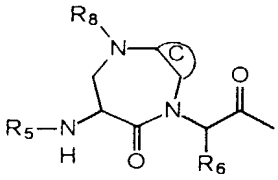
104. A compound represented by the formula:

(VII) 

wherein:

m is 1 or 2;

R_1 is selected from the group consisting of the following formulae:

(w2)  ;

C is a ring chosen from the set consisting of benzo, pyrido, thieno, pyrrolo, furano, thiazolo, isothiazolo, oxazolo, isoxazolo, pyrimido, imidazolo, cyclopentyl, and cyclohexyl, the ring optionally being singly or multiply substituted by $-Q_1$,;

R_3 is selected from the group consisting of:

-CN,

-C(O)-H,

$-C(O)-CH_2-T_1-R_{11}$,

$-C(O)-CH_2-F$,

$-C=N-O-R_9$, and

$-CO-Ar_2$;

each R_5 is independently selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,
$-C(O)-N(R_{10})(R_{10})$
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-O-R_9$,
$-C(O)C(O)-R_{10}$,
$-R_9$,
$-H$,
$-C(O)C(O)-OR_{10}$, and
$-C(O)C(O)-N(R_9)(R_{10})$;

each T_1 is independently selected from the group consisting of $-O-$, $-S-$, $-S(O)-$, and $-S(O)_2-$;

R_6 is selected from the group consisting of $-H$ and $-CH_3$;

R_8 is selected from the group consisting of:
$-C(O)-R_{10}$,
$-C(O)O-R_9$,
$-C(O)-NH-R_{10}$,
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-OR_{10}$,
$-C(O)C(O)-R_{10}$,
$-C(O)-CH_2-N(R_{10})(R_{10})$,
$-C(O)-CH_2C(O)-O-R_9$,
$-C(O)-CH_2C(O)-R_9$,
$-H$, and
$-C(O)-C(O)-OR_{10}$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched

alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{11} is independently selected from the group consisting of:

$-Ar_4$,

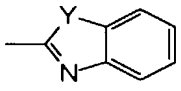
$-(CH_2)_{1-3}-Ar_4$,

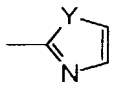
-H, and

$-C(O)-Ar_4$;

R_{15} is selected from the group consisting of -OH, $-OAr_3$, -N(H)-OH, and $-OC_{1-6}$, wherein C_{1-6} is a straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

Ar_2 is independently selected from the following group, in which any ring may optionally be singly or multiply substituted by $-Q_1$ or phenyl, optionally substituted by Q_1:

(hh)  , and

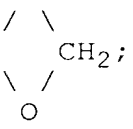
(ii)  ,

wherein each Y is independently selected from the group consisting of O and S;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings, and a heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, -NH-, $-N(R_5)-$, and $-N(R_9)-$ said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN,

=O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-N(R_9)(R_{10})$, $-R_9$, $-C(O)-R_{10}$, and  ;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

105. The compound according to claim 104, wherein:

m is 1;

C is a ring chosen from the set consisting of benzo, pyrido, and thieno, the ring optionally being singly or multiply substituted by halogen, $-NH_2$, $-NH-R_5$, or $-NH-R_9$, $-OR_{10}$, or $-R_9$, wherein R_9 is a straight or branched C_{1-4} alkyl group, and R_{10} is H or a straight or branched C_{1-4} alkyl group;

T_1 is O or S;

R_6 is H;

R_{11} is selected from the group consisting of $-Ar_4$, $-(CH_2)_{1-3}-Ar_4$, and $-C(O)-Ar_4$;

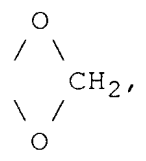
Ar_2 is (hh);

Y is O;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, thiazolyl, benzimidazolyl, thienothienyl, thiadiazolyl, benzotriazolyl, benzo[b]thiophenyl, benzofuranyl, and indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Ar_4 cyclic group is independently selected from the set consisting of phenyl, tetrazolyl, naphthyl, pyridinyl, oxazolyl, pyrimidinyl, or indolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, -Cl, -F, -Br, -OH, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and



wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

106. The compound according to claim 105, wherein R_8 is selected from the group consisting of:

$-C(O)-R_{10}$,
$-C(O)O-R_9$,
$-C(O)-CH_2-OR_{10}$, and
$-C(O)-CH_2C(O)-R_9$.

107. The compound according to claim 106, wherein R_8 is $-C(O)-CH_2-OR_{10}$ and R_{10} is -H or $-CH_3$.

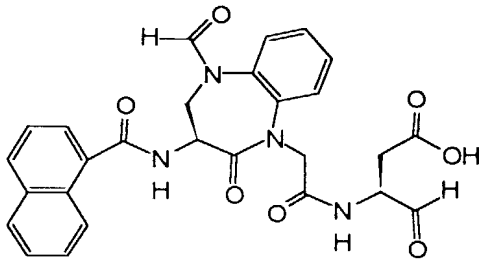
108. The compound according to claim 105, wherein R_3 is $-C(O)-Ar_2$,

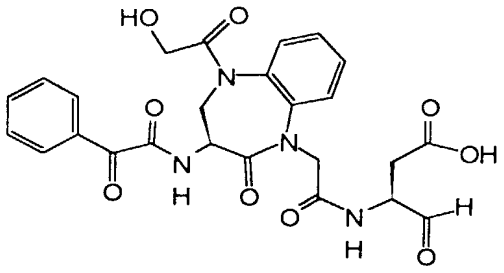
109. The compound according to claim 105, wherein R_3 is $-C(O)CH_2-T_1-R_{11}$;

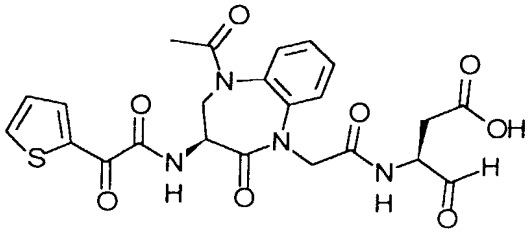
110. The compound according to claim 105, wherein R_3 is $-C(O)-H$.

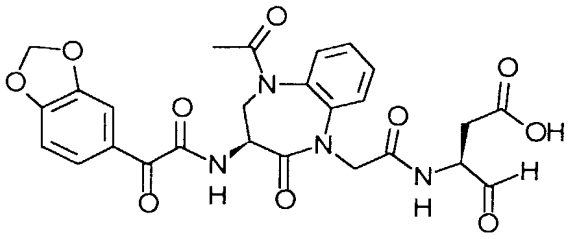
111. The compound according to claim 110, wherein R_8 is selected from the group consisting of:
$-C(O)-R_{10}$,
$-C(O)O-R_9$,
$-C(O)-CH_2-OR_{10}$, and
$-C(O)-CH_2C(O)-R_9$.

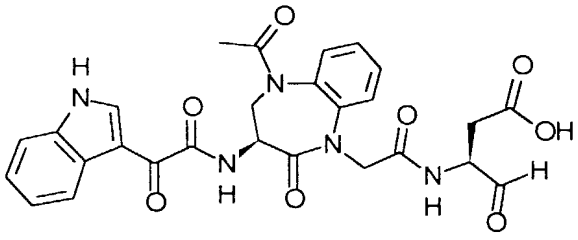
112. The compound according to claim 111, selected from the group consisting of:

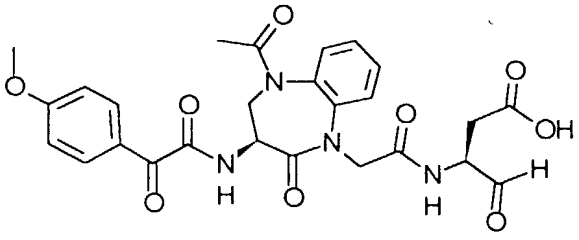
653  ;

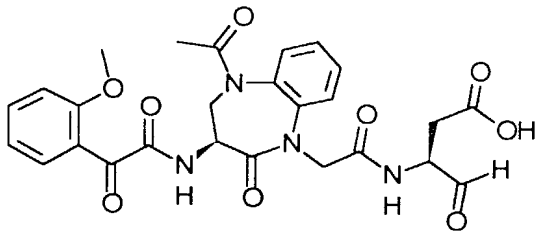
681  ;

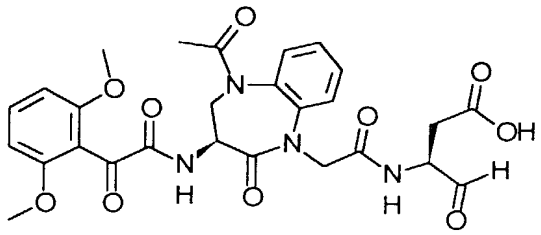
701  ;

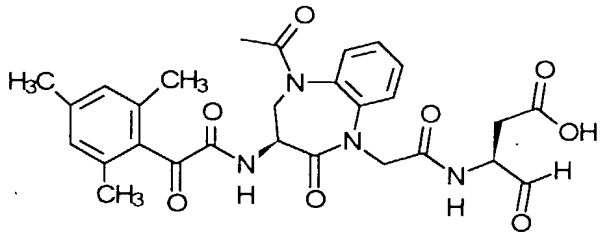
702  ;

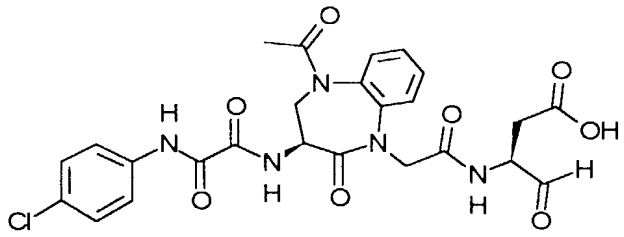
703  ;

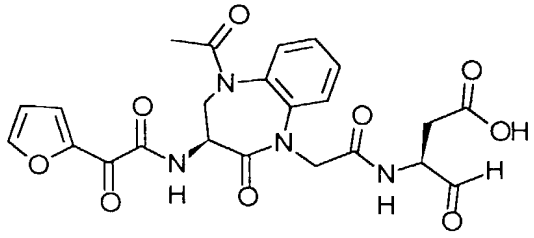
704  ;

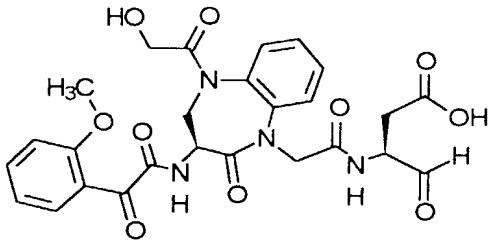
705  ;

706  ;

709  ;

710  ;

711  ; and

921 

113. The compound according to claim 111, wherein R_8 is $-C(O)-CH_2-OR_{10}$ and R_{10} is -H or $-CH_3$.

114. The compound according to claim 68, wherein:

m is 1;

T_1 is O or S;

R_{21} is -H or $-CH_3$;

Ar_2 is (hh);

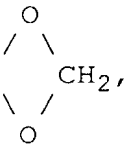
Y is O;

each Ar_3 cyclic group is independently selected from the set consisting of phenyl, naphthyl, thienyl, quinolinyl, isoquinolinyl, pyrazolyl, thiazolyl, isoxazolyl, benzotriazolyl, benzimidazolyl, thienothienyl, imidazolyl, thiadiazolyl, benzo[b]thiophenyl, pyridyl, benzofuranyl, and indolyl and said cyclic group being singly or multiply substituted by $-Q_1$;

each Ar_4 cyclic group is independently selected from the set consisting of phenyl, tetrazolyl, pyridinyl, oxazolyl, naphthyl, pyrimidinyl, and thienyl

and said cyclic group being singly or multiply substituted by
$-Q_1$;

each Q_1 is independently selected from the group consisting of $-NH_2$, -Cl, -F, -Br, -OH, $-R_9$, $-NH-R_5$ wherein R_5 is $-C(O)-R_{10}$ or $-S(O)_2-R_9$, $-OR_5$ wherein R_5 is $-C(O)-R_{10}$, $-OR_9$, $-NHR_9$, and



wherein each R_9 and R_{10} are independently a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$ wherein Ar_3 is phenyl;

provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$.

115. The compound according to claim 114, wherein R_3 is $-C(O)-Ar_2$,

116. The compound according to claim 114, wherein R_3 is $-C(O)CH_2-T_1-R_{11}$;

117. The compound according to claim 114, wherein R_3 is $-C(O)-H$.

118. The compound according to any one of claims 104-117, wherein R_5 is $-C(O)-R_{10}$ or $-C(O)C(O)-R_{10}$.

119. The compound according to claim 118, wherein R_{10} is Ar_3.

120. The compound according to claim 119, wherein:

R_5 is $-C(O)-R_{10}$ and R_{10} is Ar_3, wherein the Ar_3 cyclic group is phenyl optionally being singly or multiply substituted by:

$-R_9$, wherein R_9 is a C_{1-4} straight or branched alkyl group;

-F,

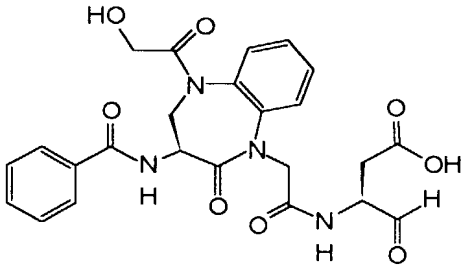
-Cl,

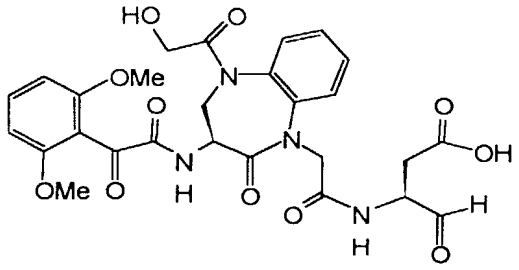
$-N(H)-R_5$, wherein $-R_5$ is -H or $-C(O)-R_{10}$, wherein R_{10} is a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein Ar_3 is phenyl,

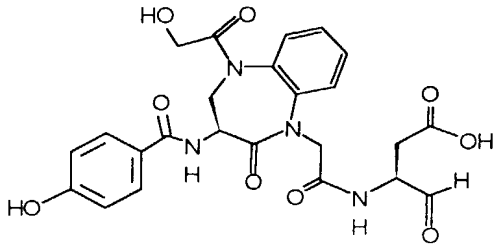
$-N(R_9)(R_{10})$, wherein R_9 and R_{10} are independently a $-C_{1-4}$ straight or branched alkyl group, or

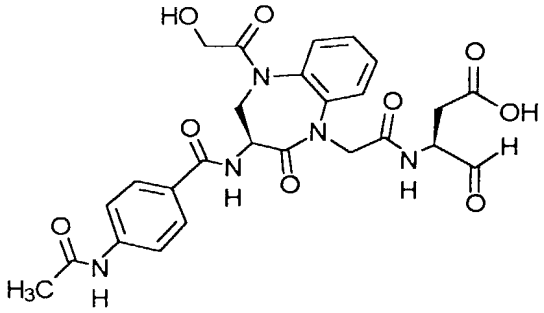
$-O-R_5$, wherein R_5 is H or a $-C_{1-4}$ straight or branched alkyl group.

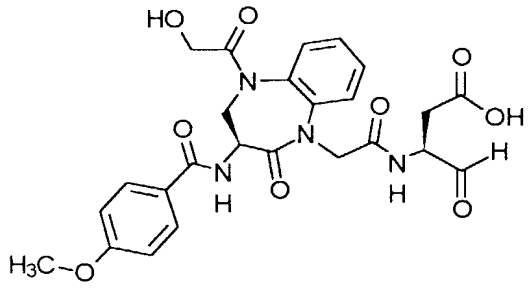
121. The compound according to claim 120, selected from the group consisting of:

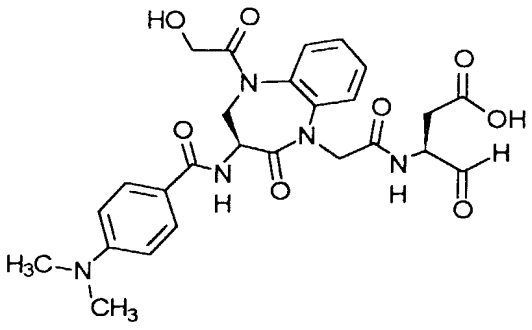
668  ;

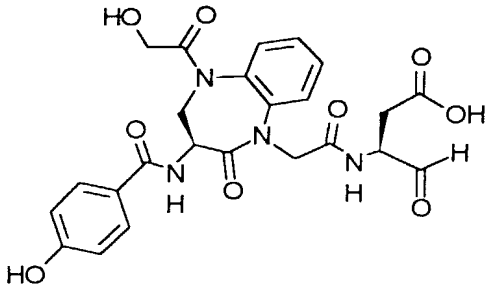
678 

691b 

911 

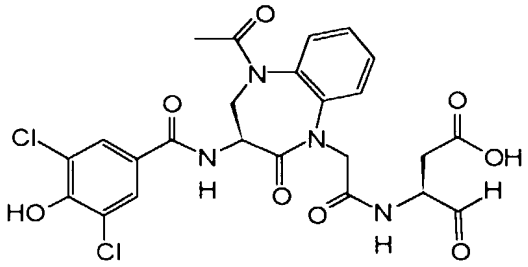
912 

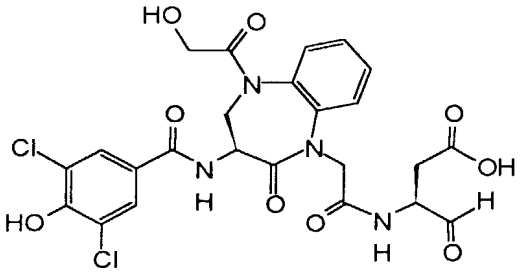
913  ; and

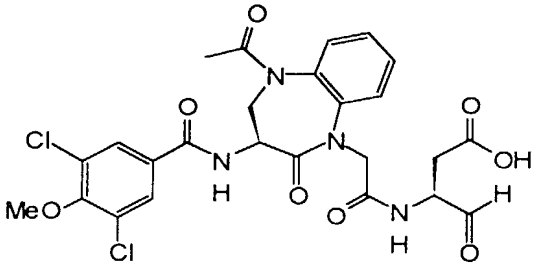
916  .

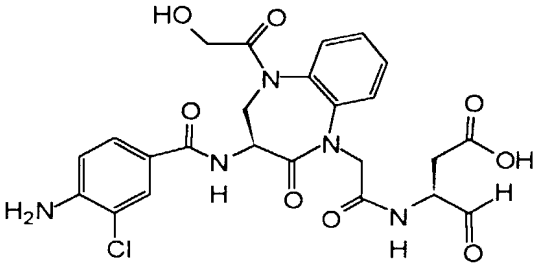
122. The compound according to claim 120, wherein Ar_3 is phenyl being singly or multiply substituted at the 3- or 5-position by -Cl or at the 4-position by $-NH-R_5$, $-N(R_9)(R_{10})$, or $-O-R_5$.

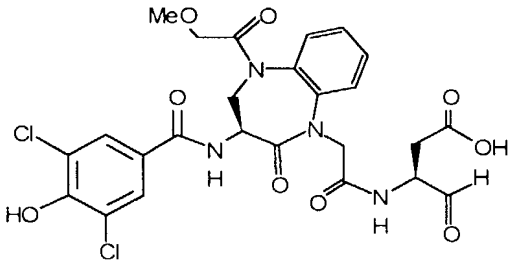
123. The compound according to claim 122, selected from the group consisting of:

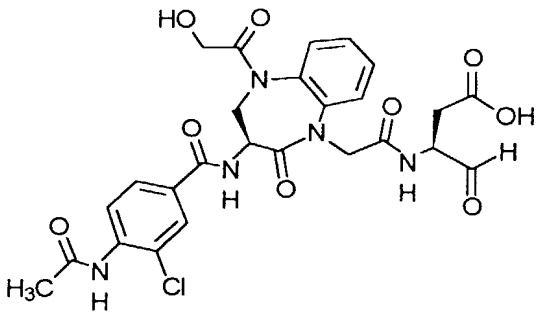
656  ;

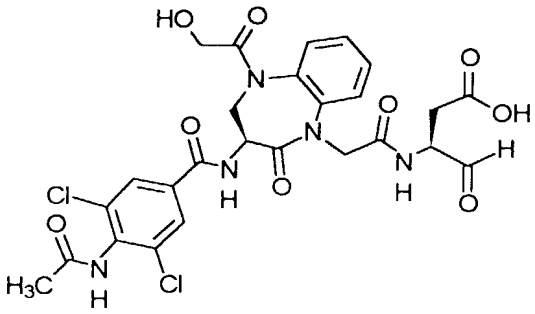
662  ;

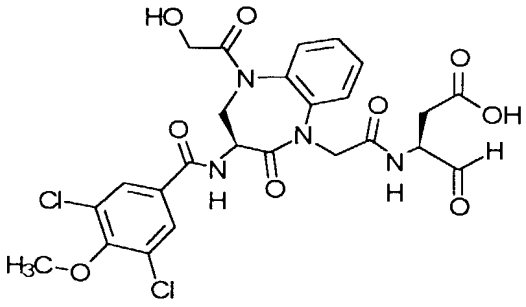
669  ;

686  ;

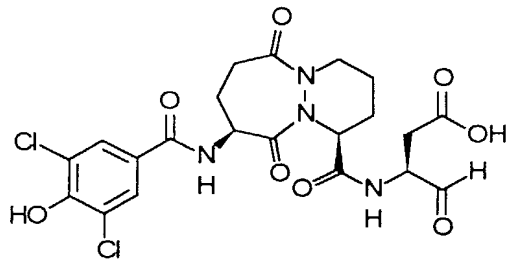
689a  ;

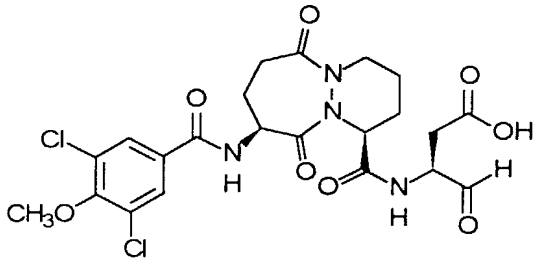
914  ;

915  ; and

918  .

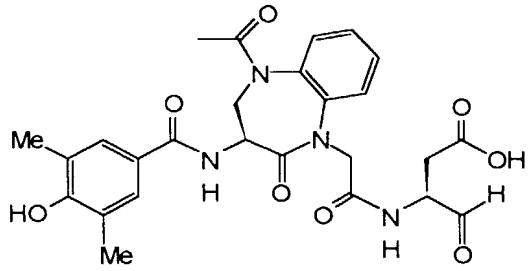
124. The compound according to claim 122, selected from the group consisting of:

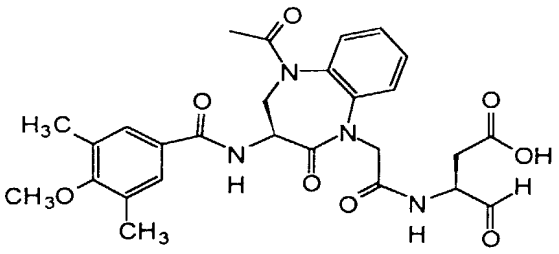
214k  ; and

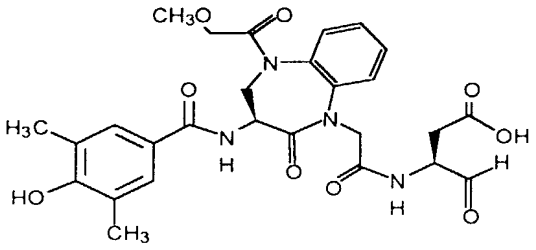
214m  .

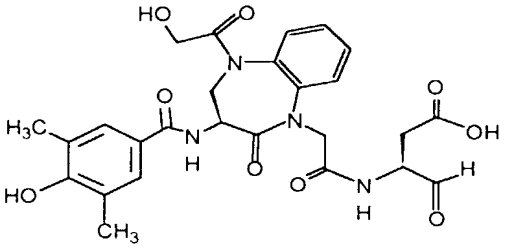
125. The compound according to claim 120, wherein Ar_3 is phenyl being singly or multiply substituted at the 3- or 5-position by $-R_9$, wherein R_9 is a C_{1-4} straight or branched alkyl group; and at the 4-position by $-O-R_5$.

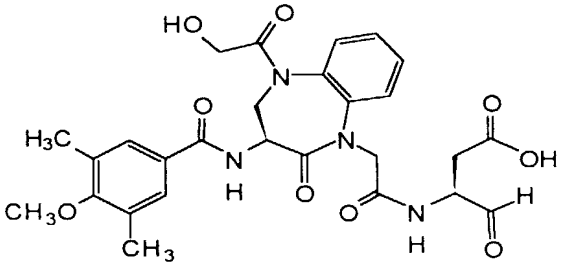
126. The compound according to claim 125, selected from the group consisting of:

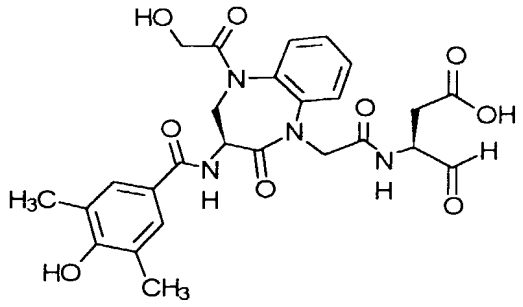
671  ;

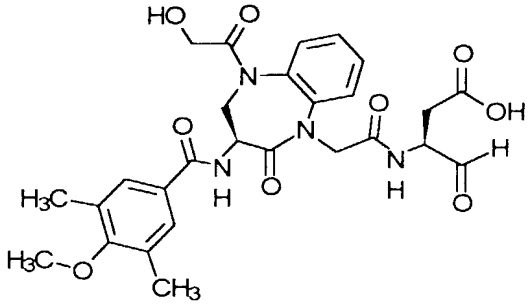
684  ;

689b  ;

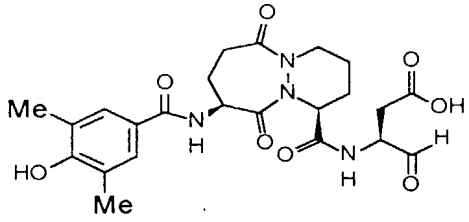
691a  ;

694  ;

917  ; and

922  .

127. The compound according to claim 125, wherein the compound is:

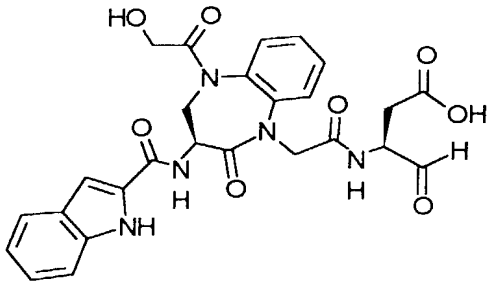
214w  .

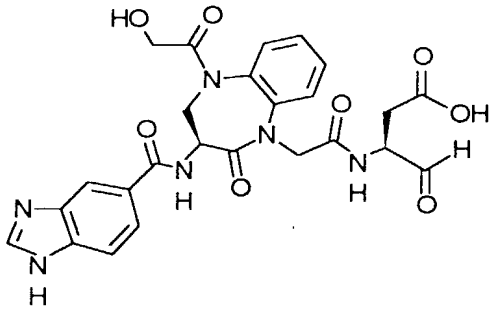
128. The compound according to claim 119, wherein:

R_5 is $-C(O)-R_{10}$, wherein R_{10} is Ar_3 and the Ar_3 cyclic group is selected from the group consisting of is indolyl, benzimidazolyl, thienyl, quinolyl, isoquinolyl and benzo[b]thiophenyl, and said cyclic group optionally being singly or multiply substituted

by $-Q_1$.

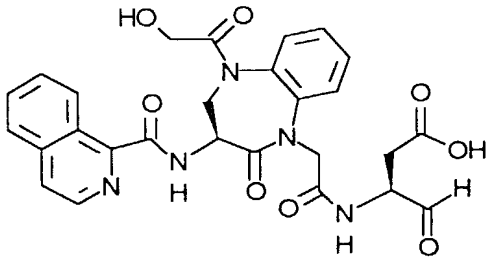
129. The compound according to claim 128, selected from the group consisting of:

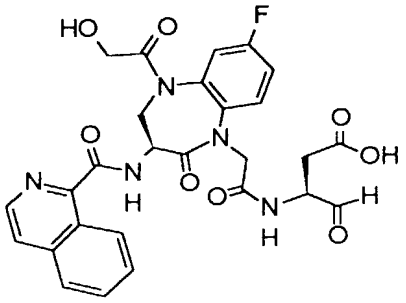
919  ; and

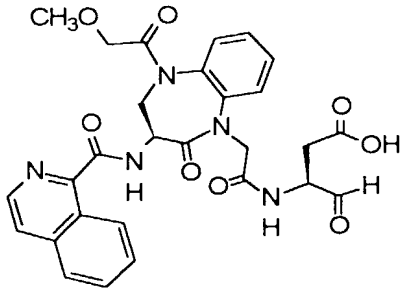
920  .

130. The compound according to claim 128, wherein the Ar_3 cyclic group is isoquinolyl, and said cyclic group optionally being singly or multiply substituted by $-Q_1$.

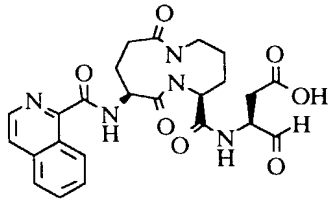
131. The compound according to claim 130, wherein the compound is:

696  ;

696-1  ; and

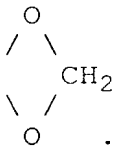
699  .

132. The compound according to claim 130, wherein the compound is:

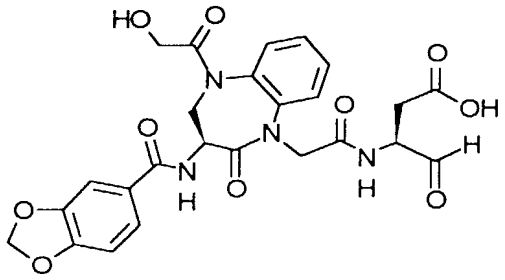
412  .

133. The compound according to claim 119, wherein R_5 is $-C(O)-R_{10}$, wherein R_{10} is Ar_3 and the Ar_3

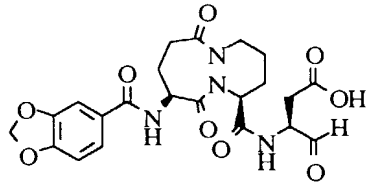
cyclic group is phenyl, substituted by



134. The compound according to claim 133, wherein the compound is:

910 

135. The compound according to claim 133, wherein the compound is:

415 

136. A pharmaceutical composition, comprising a compound according to any one of claims 1-41 and 57-135 in an amount effective for decreasing IGIF production and a pharmaceutically acceptable carrier.

137. A pharmaceutical composition comprising a compound according to any one of claims 1-41 and 57-135 in an amount effective for decreasing IFN-γ

production and a pharmaceutically acceptable carrier.

138. A method for treating or preventing a disease selected from an IGIF mediated disease, an IFN-γ mediated disease, an inflammatory disease, an autoimmune disease, an infectious disease, a proliferative disease, a neurodegenerative disease, a necrotic disease, osteoarthritis, acute pancreatitis, chronic pancreatitis, asthma, rheumatoid arthritis, inflammatory bowel disease, Crohn's disease, ulcerative collitis, cerebral ischemia, myocardial ischemia, adult respiratory distress syndrome, infectious hepatitis, sepsis, septic shock, Shigellosis, glomerulonephritis, systemic lupus erythematosus, scleroderma, chronic thyroiditis, Graves' disease, autoimmune gastritis, insulin-dependent diabetes mellitus (Type I), juvenile diabetes, autoimmune hemolytic anemia, autoimmune neutropenia, thrombocytopenia, myasthenia gravis, multiple sclerosis, psoriasis, lichenplanus, graft vs. host disease, acute dermatomyositis, eczema, primary cirrhosis, hepatitis, uveitis, Behcet's disease, acute dermatomyositis, atopic skin disease, pure red cell aplasia, aplastic anemia, amyotrophic lateral sclerosis and nephrotic syndrome comprising the step of administering to said patient a pharmaceutical composition according to claims 136 or 137.

139. The method according to claim 138, wherein the disease is selected from an inflammatory disease, an autoimmune disease, an infectious disease, rheumatoid arthritis, ulcerative collitis, Crohn's disease, hepatitis, adult respiratory distress syndrome, glomerulonephritis, insulin-dependent

diabetes mellitus (Type I), juvenile diabetes, psoriasis, graft vs. host disease, and hepatitis.

140. A process for preparing an N-acylamino compound, comprising the steps of:

a) mixing a carboxylic acid with an N-alloc-protected amine in the presence of an inert solvent, triphenylphoshine, a nucleophilic scavenger, and tetrakis-triphenyl phosphine palladium(0) at ambient temperature under an inert atmosphere; and

b) adding to the step a) mixture, HOBT and EDC; and optionally comprising the further step of:

c) hydrolyzing the step b) mixture in the presence of a solution comprising an acid and H_2O, wherein the step b) mixture is optionally concentrated.

141. The process according to claim 140, wherein the inert solvent is CH_2Cl_2, DMF, or a mixture of CH_2Cl_2 and DMF.

142. The process according to claim 140, wherein the nucleophilic scavenger is dimedone, morpholine, trimethylsilyl dimethylamine or dimethyl barbituric acid.

143. The process according to claim 142, wherein the nucleophilic scavenger is trimethylsilyl dimethylamine or dimethyl barbituric acid.

144. The process according to claim 142, wherein the inert solvent is CH_2Cl_2, DMF, or a mixture

of CH_2Cl_2 and DMF.

145. The process according to claim 144, wherein the nucleophilic scavenger is dimethyl barbituric acid.

146. The process according to claim 145, wherein the solution comprises trifluoroacetic acid in about 1-90% by weight.

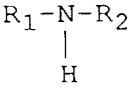
147. The process according to claim 146, wherein the solution comprises trifluoroacetic acid in about 20-50% by weight.

148. The process according to claim 145, wherein the solution comprises hydrochloric acid in about 0.1-30% by weight.

149. The process according to claim 148, wherein the solution comprises hydrochloric acid in about 5-15% by weight.

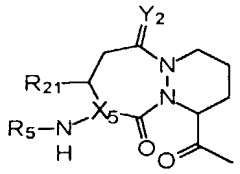
150. The process according to any one of claims 140-149, wherein the N-acylamino compound is represented by formula (VIII):

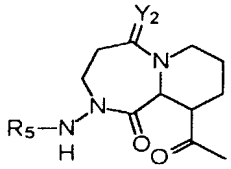
(VIII)

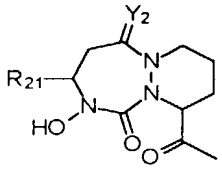


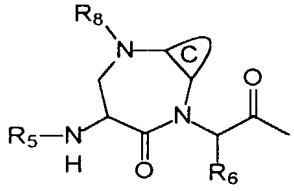
wherein:

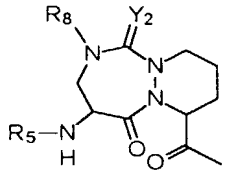
R_1 is selected from the group consisting of the following formulae:

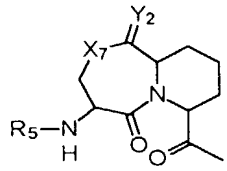
(e10)  ;

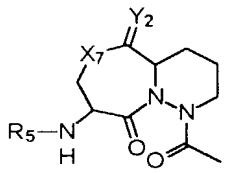
(e11)  ;

(e12)  ;

(w2)  ;

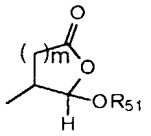
(y1)  ;

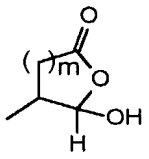
(y2)  ;

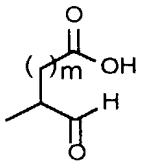
(z)  ; and

C is a ring chosen from the set consisting of benzo, pyrido, thieno, pyrrolo, furano, thiazolo, isothiazolo, oxazolo, isoxazolo, pyrimido, imidazolo, cyclopentyl, and cyclohexyl, the ring optionally being singly or multiply substituted by halogen, $-NH_2$, or $-NH-R_9$,;

R_2 is:

(a)  ,

(b)  , or

(c)  ;

m is 1 or 2;

each R_5 is independently selected from the group consisting of:

$-C(O)-R_{10}$,

$-C(O)O-R_9$,
$-C(O)-N(R_{10})(R_{10})$
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-O-R_9$,
$-C(O)C(O)-R_{10}$,
$-R_9$,
$-H$,
$-C(O)C(O)-OR_{10}$, and
$-C(O)C(O)-N(R_9)(R_{10})$;

X_5 is CH or N;

Y_2 is H_2 or O;

X_7 is $-N(R_8)-$ or $-O-$;

R_6 is selected from the group consisting of -H and $-CH_3$;

R_8 is selected from the group consisting of:
$-C(O)-R_{10}$,
$-C(O)O-R_9$,
$-C(O)-N(H)-R_{10}$,
$-S(O)_2-R_9$,
$-S(O)_2-NH-R_{10}$,
$-C(O)-CH_2-OR_{10}$,
$-C(O)C(O)-R_{10}$;
$-C(O)-CH_2N(R_{10})(R_{10})$,
$-C(O)-CH_2C(O)-O-R_9$,
$-C(O)-CH_2C(O)-R_9$,
-H, and
$-C(O)-C(O)-OR_{10}$;

each R_9 is independently selected from the group consisting of $-Ar_3$ and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

each R_{10} is independently selected from the group consisting of -H, $-Ar_3$, a $-C_{3-6}$ cycloalkyl group, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, wherein the $-C_{1-6}$ alkyl group is optionally unsaturated;

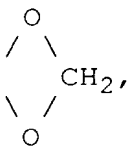
R_{13} is selected from the group consisting of H, Ar_3, and a $-C_{1-6}$ straight or branched alkyl group optionally substituted with $-Ar_3$, $-CONH_2$, $-OR_5$, -OH, $-OR_9$, or $-CO_2H$;

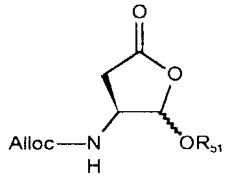
each R_{51} is independently selected from the group consisting of R_9, $-C(O)-R_9$, $-C(O)-N(H)-R_9$, or each R_{51} taken together forms a saturated 4-8 member carbocyclic ring or heterocyclic ring containing -O-, -S-, or -NH-;

each R_{21} is independently selected from the group consisting of -H or a $-C_{1-6}$ straight or branched alkyl group;

each Ar_3 is a cyclic group independently selected from the set consisting of an aryl group which contains 6, 10, 12, or 14 carbon atoms and between 1 and 3 rings and an aromatic heterocycle group containing between 5 and 15 ring atoms and between 1 and 3 rings, said heterocyclic group containing at least one heteroatom group selected from -O-, -S-, -SO-, SO_2, =N-, and -NH-, said heterocycle group optionally containing one or more double bonds, said heterocycle group optionally

comprising one or more aromatic rings, and said cyclic group optionally being singly or multiply substituted by $-Q_1$;

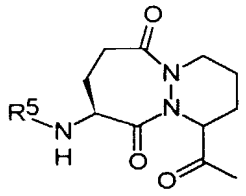
each Q_1 is independently selected from the group consisting of $-NH_2$, $-CO_2H$, -Cl, -F, -Br, -I, $-NO_2$, -CN, =O, -OH, -perfluoro C_{1-3} alkyl, R_5, $-OR_5$, $-NHR_5$, $-OR_9$, $-N(R_9)(R_{10})$, $-R_9$, $-C(O)-R_{10}$, and  , provided that when $-Ar_3$ is substituted with a Q_1 group which comprises one or more additional $-Ar_3$ groups, said additional $-Ar_3$ groups are not substituted with another $-Ar_3$;

151. The process according to any one of claims 140 -149 wherein the N-alloc protected amine is:  , wherein:

R_{51} is independently selected from the group consisting of R_9, $-C(O)-R_9$, $-C(O)-N(H)-R_9$, or each R_{51} taken together forms a saturated 4-8 member carbocyclic ring or heterocyclic ring containing -O-, -S-, or -NH-;

152. The process according to any one of claims 140-149, wherein R_1 is:

(A-e10)



153. The process according to any one of claims 140-149, wherein R_1 is:

(A-w2)